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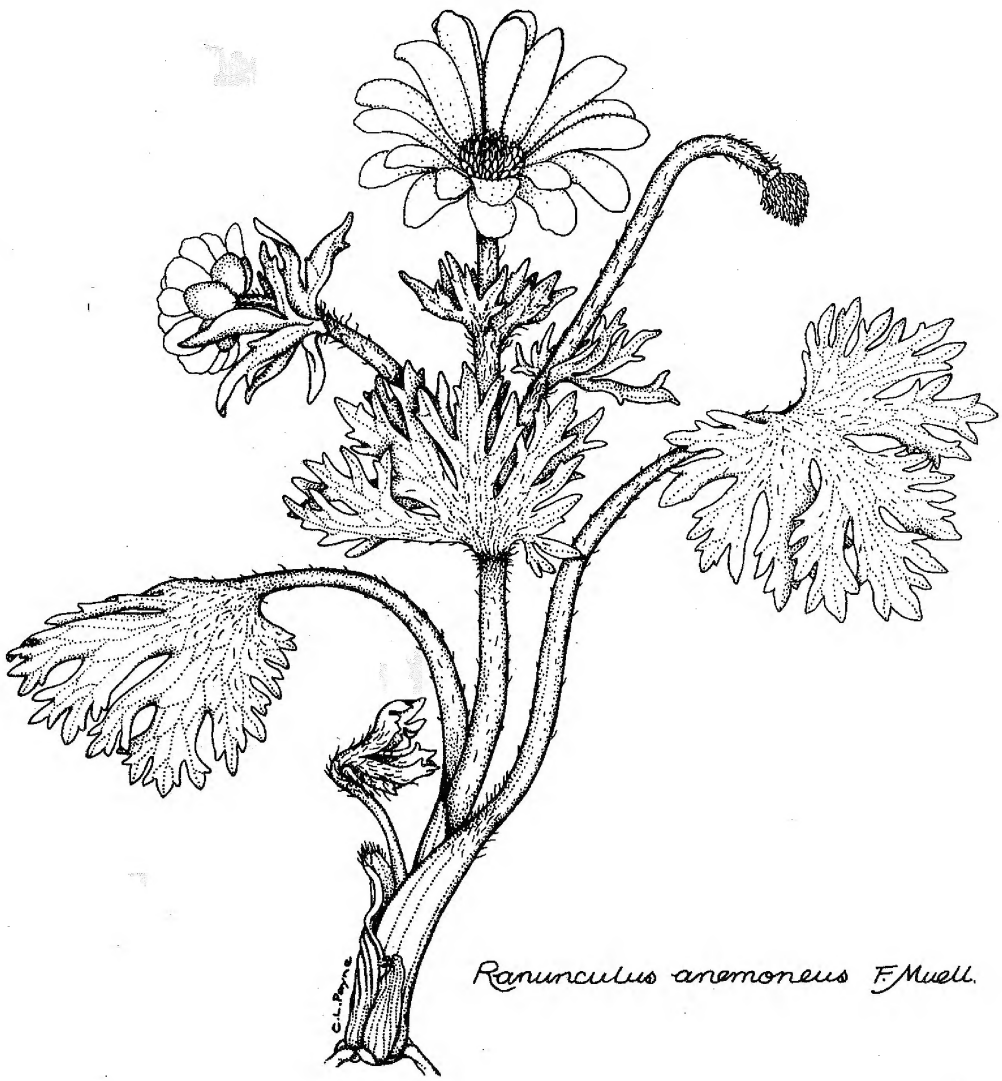

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AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

Office Bearers

President

Dr B.G. Briggs
National Herbarium
Mrs Macquaries Road
SYDNEY NSW 2000

Tel (02) 231 8113
Fax (02) 251 4403

Vice President

Dr J.G. West
Australian National
Herbarium, CSIRO
GPO Box 1600
CANBERRA ACT 2601

Tel (062) 46 5913
Fax (062) 47 3785

Secretary

Dr B.J. Conn
National Herbarium
Mrs Macquaries Road
SYDNEY NSW 2000

Tel (02) 231 8131
Fax (02) 251 4403

Treasurer

Dr D.B. Foreman
National Herbarium
Birdwood Avenue
SOUTH YARRA
VIC 3141

Tel (03) 650 9424
Fax (03) 650 5917

Councillors

Dr M.D. Crisp
Australian National
Botanic Gardens
GPO Box 1777
CANBERRA ACT 2601

Tel (062) 67 1821
Fax (062) 48 0682

Dr G.P. Guymer
Queensland Herbarium
Meiers Road
INDOOROOPILLY
QLD 4068

Tel (07) 377 9326
Fax (07)870 3276

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NANCY T. BURBIDGE MEMORIAL LECTURE, 1988

Melbourne: a focal point for early botanical activity.

J.H. Willis

I am grateful to the Australian Systematic Botany Society for inviting me here to deliver the Nancy T. Burbidge Memorial Lecture, 1988, as an opening address for this important Symposium.

It had been my privilege to know Nancy as a botanical colleague and esteemed friend ever since she came to Canberra in May 1946, as Systematic Botanist at the CSIRO's Division of Plant Industry - then a very small affair. From her own wide experience over two lengthy periods at Kew Herbarium (1939/40 and 1953/54) she gave me much valuable advice before I too went there as Australian Botanical Liaison Officer in 1958.

In his sensitive obituary (*'Brunonia'* 1: 123-129, Feb. 1978) William Hartley speaks of her 'constant desire to stimulate interest in the Australian flora, and to make information available to people in all walks of life' - what patriot could set any higher goals? As an explorer, ecologist, phytogeographer, systematist, historian, conservationist, lucid speaker and prolific writer, as well as her own accomplished illustrator, Dr Burbidge was well qualified indeed to share her special knowledge with the public at large and the scientific world in particular.

She was the founder of Canberra's *Herbarium Australiense*, a councillor on the Botany Section of ANZAAS for many years, the doughty champion of conservational movements in the ACT, a founding committee member and driving force behind the ACT's National Parks Association, a worker in numerous cultural and scientific bodies in and beyond Canberra and, last but not least, a prominent leader in the *'Flora of Australia'* Project that came to fruition four years after her death. If any modern Australian botanist, by volume of literary output, diversity of interests and enterprises and by sheer excellence overall, could be called a legitimate successor to Mueller the Great, it would have to be NANCY TYSON BURBIDGE.

Now to Melbourne, and its focus on early botanical activity. Through the commendable foresight of Charles Joseph LaTrobe, Superintendent of Port Phillip District, NSW, Melbourne's embryonic Botanical Garden was established in 1846, only eleven years after foundation of the settlement; he also reserved space for the Fitzroy and Carlton (Exhibition) Gardens. At this time virtually no botanical work had as yet emanated from the infant Melbourne, except perhaps for some 'extensive and excellent collections' around the settlement by one Frederick Adamson between 1840 and 1855 - specimens had been sent to Kew Herbarium.

By contrast, Sydney's Botanic Gardens (1816) had an advantage of 30 years and its collectors - notably Charles Fraser, Allan Cunningham, James Anderson, James Kidd and Charles Moore - had made substantial contributions from the environs of Port Jackson and far beyond, not to mention the achievements of such earlier visiting plantsmen as Joseph Banks (plus his entourage), John White, Luis Nee, George Caley, Robert Brown, Francois Peron and Franz Sieber.

John Arthur and John Dallachy, both Scottish gardeners, were the two first superintendents of Melbourne Botanic Garden; neither was a trained or active botanist, but they doubtless gave advice on such botanical matters as identifications. Daniel Bunce (1813-72) claimed the distinction of being Victoria's first resident botanist. He had come to this colony as a horticulturist from Tasmania in 1839, and later went on to establish Geelong's Botanic Garden in 1857.

Concurrently with a movement of population from South Australia towards the newly discovered goldfields in Victoria, a young Dr Ferdinand J.H. Mueller arrived in Melbourne from Adelaide during August 1852. Well accredited in botanical circles, he was appointed within five months to the position of Victoria's first Government botanist (on 26 January 1853), and he immediately commenced a series of stupendous exploratory journeys by horseback and on foot. By the end of 15 months he had covered 6400km (4000 miles) and netted 1459 species of plants not previously recorded for Victoria, many of these being undescribed. Other explorations followed year by year, throughout and beyond the colony, bringing in a wealth of information that was soon to be disseminated by published accounts containing descriptions of a myriad new species. A conservative estimate of his total travels by land would be 24,000km (15,000 miles), half of it in Victoria.

Probably Mueller's greatest achievement was in establishing the Melbourne Herbarium (MEL), which could be said to date from 1854 when he began housing his collections in a small building detached from the new Director's Residence in the Botanic Gardens. During 1860-61 the specimens were transferred to much more commodious quarters (the 'Old Herbarium') erected in The Domain; Mueller and his staff always referred to this repository as 'the Museum'. By 1867 the rapidly increasing number of specimens had risen to 350,000. In the 1860's Mueller kept his own private herbarium separate from the larger government collection, but it is not known precisely when he donated the former material for amalgamation in a single national collection. His considerable and valuable library was purchased by the Government (for the Herbarium) in 1898.

The National Herbarium of Victoria, moved to its present site and building in 1935, has grown to be the largest in Australia (probably also in the southern hemisphere) and by far the richest in historic collections and type material. The Australian specimens gathered on such expeditions as those of A.C. Gregory (1855-56 & 1858), B.H. Babbage (1858), J.McD. Stuart (1860-62), Burke and Wills (1860-61), A.W. Howitt (1861-62), J. and A. Forrest (1869-71), W.E.P. Giles (1872-75), W.H. Tietkens (1889) and D. Lindsay (1891-91) all came to Melbourne for examination by Mueller who worked through them, describing many novelties. Between 1876 and 1882 Lutheran missionaries F.A.H. Kempe and W.F. Schwarz supplied Mueller with hundreds of plant species from their Centralian station at Hermannsburg. Amongst Melbourne's special treasures are many duplicates from the early gatherings by Joseph Banks (1770) and Robert Brown (1802-05), donated by the British Museum. Then there are a set of J.A.L. Preiss's Western Australian collectings and J.G.C. Lehmann's type-rich folders which were purchased as part of the great Otto Sonder herbarium (about 250,000 specimens) between 1870 and 1883 - they contain sheets from 18th century botanists, a few having even belonged to Linnaeus! These priceless resources remain as essential points of reference for most taxonomic research on the Australian flora.

The seven volume *'Flora Australiensis'* (1863-78) was a literary monument to the collaborative skills of two brilliant men working from opposite ends of the world, George Bentham at Kew and Ferdinand Mueller in Melbourne. Over a period of 16 years tens of thousands of Australian specimens were successively packaged by Mueller, shipped to London and returned when investigated by Bentham, without loss or damage - could one expect as much in these modern days of sophisticated handling and rapid transport? After more than a century, *'Flora Australiensis'* still remains the only definitive work on the vascular vegetation of the whole continent.

A remarkable production of Mueller's was the *'Fragmenta Phytographiae Australiae'* (twelve volumes in 94 fascicles between 1858 and 1882) wherein he described many of his 2000 odd new species of plants. This work holds the unique distinction of being Australia's only scientific periodical to be printed entirely in Latin. Mueller's other writings are voluminous - some 1330 items ranging from notes, plant lists, pamphlets and articles with original descriptions to floristic handbooks and immense monographs. He wrote innumerable reports on the plant species accruing from various expeditions throughout Australia.

Mueller was Australia's first palaeobotanist, working and reporting on the plant fossils turned up in Tertiary sediments by mining operations, especially along the deep leads under basalt. Excepting ferns, he sent to appropriate experts overseas all other cryptogams - bryophytes, algae,fungi and lichens. A stimulating early experience was to meet the renowned phycologist, Professor W.H. Harvey of Dublin

University, who spent four months of spring and early summer 1854 in collecting seaweeds along the Victorian coastline (between Phillip Island and Port Fairy); Mueller rendered ample assistance and accompanied Harvey on several nearer excursions. After 18 months' collecting in various parts of Australia, Harvey returned to Ireland with 20,000 specimens - replicates of many are in MEL.

Another important involvement was Mueller's almost obsessive interest in acclimatisation of plants suitable for timber, food, medicine, ornament, sand-binding and other uses. Many of our most acceptable trees in forest plantations, parks and gardens bear witness to the success of his early introductions. In the year 1857/58 alone he had distributed 7120 living plants and 22,438 packets of seed to gardens throughout the colony. Vast amounts of Australian seed (notably of *Eucalyptus*) were also sent abroad to various climatically favourable countries in both Old and New Worlds. A startling success, that earned him a papal knighthood, was to render habitable the fever-ridden Pontine marshes near Rome by plantations of *Eucalyptus globulus*, commencing in 1870.

For more than 40 years Ferdinand (latterly Baron von) Mueller held undisputed sway as Victoria's, if not Australia's, most productive, distinguished and highly decorated scientist. No other single person could match the output of this incredibly hard-working and dedicated explorer, geographer, horticulturist, phytochemist and systematist *par excellence*. In a very real sense the name of Mueller became synonymous with botanical endeavour throughout the colony and he certainly focussed attention on Melbourne as an important centre of culture and research. For the first three decades of Mueller's service, Victorian botany had been virtually a 'one-man show' aided by a few rather faceless amateurs. It is therefore interesting to speculate how and when botanical activity might have been generated here without the presence of a Mueller.

As the Baron aged, his fieldwork slackened off, and there were no exploratory marathons of long duration after 1877. Henceforward he concentrated on literary undertakings and much correspondence (to 3,000 letters per annum), while younger collectors provided him with needful specimens. Thus he enlisted, and inspired a veritable army of willing enthusiasts from many walks of life eg school teachers, doctors, clergymen, postal employees, surveyors, miners, farmers and their womenfolk.

A vital factor in promoting botanical activity in and around Melbourne was the Field Naturalists Club of Victoria, founded in 1880 with von Mueller as its patron and staunch supporter. The Club's journal, *'The Victorian Naturalist'*, began on a monthly basis in 1884 and Mueller was a frequent contributor to its pages - 79 articles and notes to August 1896. As well as general observers and collectors of plants, the Club had several members with specialist knowledge, viz: Charles French (orchids and ferns), Daniel Sullivan (mosses), Rev Francis Wilson (lichens), Henry Tisdall (fungi and algae), John Bracebridge Wilson (algae), Henry Watts (algae) and Prof Arthur Lucas (algae) - all contributed papers to the *'The Victorian Naturalist'*.

Mueller's death in October 1896 left a vacuum in botanical effort that took many years to fill. As historian Lionel Gilbert reminds us, in his preface to *'The Royal Botanic Gardens, Sydney'* (1986) 'When he was ousted [in 1873] the Botanic Garden by the Yarra became beautiful but intellectually void. Systematic botany in Victoria has been a long time recovering.'

Some renewal of collecting activity and an impetus to taxonomic work followed the arrival from England of Professor Alfred J. Ewart in 1905. Ewart held the dual position of Government Botanist and head of the Botany School at Melbourne University, dividing his time between the National Herbarium and the University. With a depleted staff, the severe exigencies of World War I and

Ewart's departure in 1921 to full-time duties at the Botany School, Melbourne's Herbarium sank into a slough of unproductiveness, if not complete inertia, over a period of some three decades - until World War II. Only *'The Victorian Naturalist'* and research papers by Professor Ewart's students and associates, published in *'Proceedings of the Royal Society of Victoria'*, helped to keep systematic botany alive in this state until the 1940's. Significant highlights in this comparative limbo had been *'A Census of the Plants of Victoria'* (1923, revised in 1928), prepared and published by the Plant Names Committee of The Field Naturalists Club of Victoria - a most useful pocket book retailing at three shillings & sixpence - and A.J. Ewart's long awaited, rather bulky, single-volume *'Flora of Victoria'* (1931).

Most other State Herbaria are appropriately controlled by agricultural departments; but, until quite recently, Melbourne's had been bedevilled by its location either within the Chief Secretary's Department or that of Crown Lands & Survey where due appreciation and understanding of botanical needs were oftentimes minimal or sometimes completely lacking.

AUTHORS OF MONUMENTAL BIO-BIBLIOGRAPHY HONOURED

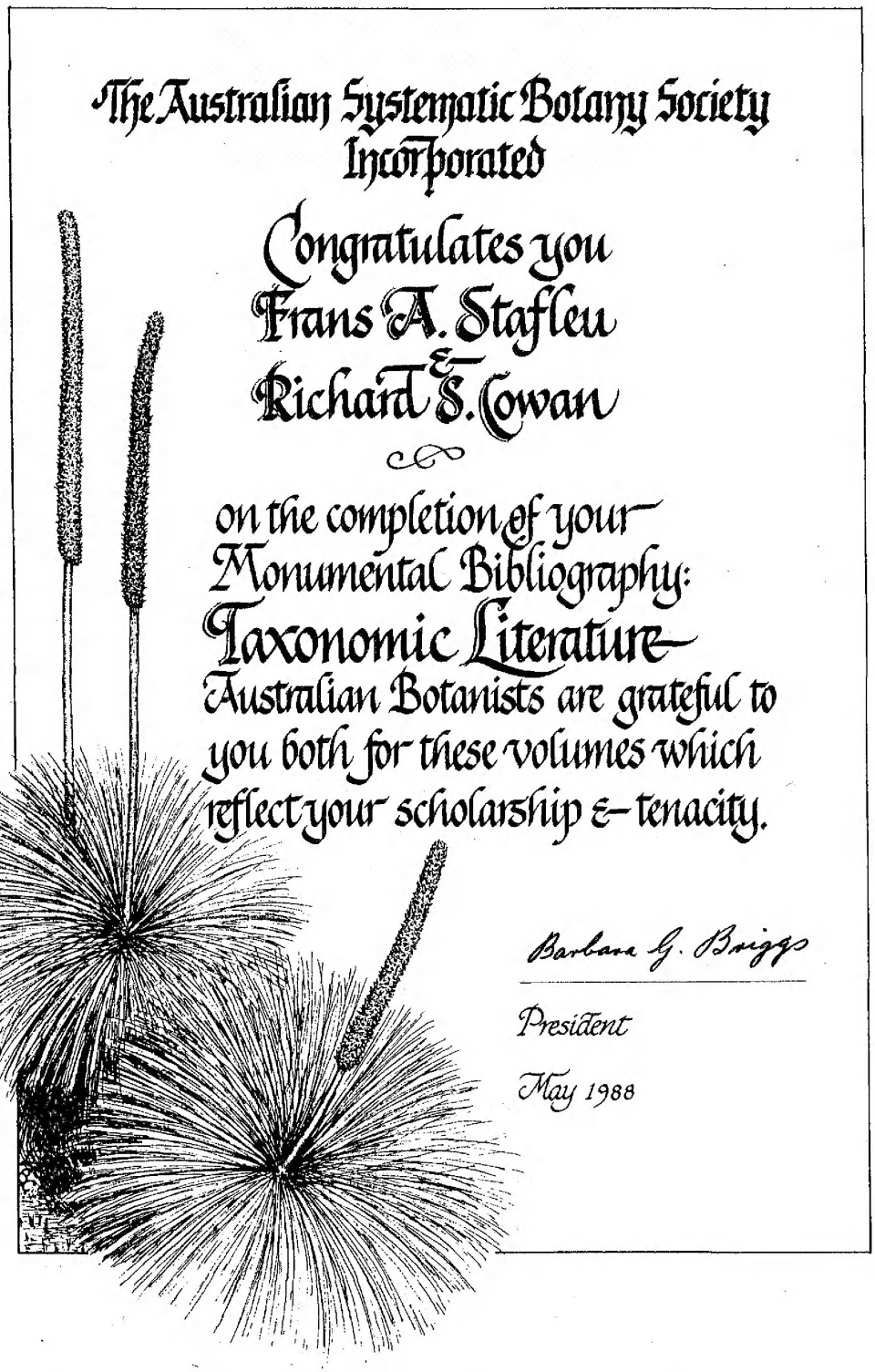
Laurie Haegi
Adelaide

Members attending the highly successful Botanical History Symposium in Melbourne recently were treated to an informative and entertaining account by Dr Richard S. Cowan of the bibliographical research that went into the preparation of the vastly expanded second edition of *'Taxonomic Literature'*. As co-author of this work with Dr Frans A. Stafleu, Richard (now living in Perth and working at PERTH) gave rare insights into the almost unimaginable scope of such a project. Knowing that Richard was to be present and with the seventh and last volume just having been published, Council decided on the Society's behalf and at the suggestion of David Symon through the Adelaide Chapter that the two authors be honoured at the meeting with a special presentation. This was in the form of a pair of scrolls, one presented at the Conference Dinner to Richard, the other sent to Dr Stafleu. (A copy appears opposite). The originals were B4 in size; the artwork, inspired by the distinctively Australian *Xanthorrhoea* of the Society's logo, was drawn by Adelaide botanical artist Beth Chandler.

BARON CONSTANTIN VON ETTINGSHAUSEN, PIONEER BOTANIST OF THE AUSTRALIAN PALAEOFLORA

Robert S. Hill
Botany Department, University of Tasmania
GPO Box 252C, Hobart, Tasmania 7001

1988 marks the centenary of two important botanical publications. The first of these was R.M. Johnston's *'Systematic Account of the Geology of Tasmania'*. In this book Johnston summarised his knowledge of the Tertiary flora of Tasmania, which at that time was one of the best known regions of Australia. However, Johnston was not primarily a palaeobotanist, and many of his identifications were incomplete or inaccurate. This should in no way detract from the monumental effort involved in the production of his book, which will be marked this year by the publication of a new book on the geology of Tasmania.



A reproduction of the scrolls presented by the Society to Richard Cowan and Franz Stafleu.

However, a more important botanical publication was Constantin von Ettingshausen's *'Contributions to the Tertiary Flora of Australia'*. This work was first published in two parts in German (von Ettingshausen 1883, 1886), but the English translation, carried out by the author, remains the most widely cited work (von Ettingshausen 1888). The publication was in two parts. The first was a summary of work already published (mostly by R.M. Johnston and Ferdinand von Mueller) and a description of new species from a number of Tertiary localities, while the second was a description of the fossil flora from the area around Vegetable Creek (including Elsemore and Tingha).

During the latter half of the last century, tin mining thrived in the area of Vegetable Creek, in northern New South Wales near the Queensland border. Today the township of Emmaville remains close to the old diggings. Many of the old shafts can still be found, and usually consist of holes about four or five feet long by two feet wide which disappear almost vertically into the ground often for tens of metres before they reach the tin-bearing sediments. In the process of reaching these sediments, the miners occasionally dug through fossil-bearing sediments, some of which were collected and placed in the collection of the Government Geologist of NSW. This fossil collection comes from several different localities (eg Old Rose Valley Lead, Witherden's Tunnel, Fox and Partridge's Claim, Wellington Vale, Bates' Shaft, Gem Lead, Newstead, Watson's Starlight Claim) and from at least two different stratigraphic levels (Pickett *et al.* in prep.).

Part I of the work is based on collections sent to the British Museum by Mr C.S. Wilkinson, the Government Geologist of New South Wales. It was there that von Ettingshausen studied the fossils, along with herbarium specimens of the extant Australian flora held at the British Museum and Kew. The material for the second part of his publication appears to have been sent directly to him at Graz by Wilkinson after the first part was complete. Von Ettingshausen assumed that all the specimens from Vegetable Creek were contemporaneous, and in fact he probably had no information to the contrary, since the collection was apparently sent in a hurry (Etheridge, 1888). Etheridge, in an appendix to von Ettingshausen's Australian publication, attempted to describe the localities and the fossils associated with each.

In the two parts of his paper, von Ettingshausen described 189 species (Table 1), and provided a base from which palaeobotanical work should have flourished in Australia. Despite this, his contribution is now virtually forgotten. This is probably because of von Ettingshausen's theory of a cosmopolitan flora. In essence, von Ettinghausen had suggested that the early Tertiary flora was more or less uniform, containing elements now found in all parts of the world. For example, it was commonly regarded that eucalypts and banksias amongst others were common in the European Tertiary, and similarly von Ettingshausen had described several species with European or North American affinities (eg *Alnus*, *Betula* and *Quercus*) in the Australian Tertiary (Table 1). He considered that this cosmopolitan flora became specialised only towards the end of the Tertiary (or even in the Quaternary), and that this specialisation had been greatest in Australia. This theory came in for scathing attack, particularly from Henry Deane, in his presidential address to the Linnaean Society of New South Wales in 1895 and later in 1900.

While the Cosmopolitan theory has long been abandoned, it should not detract too severely from the worth of von Ettingshausen's contribution. While many of his determinations were incorrect, many others were accurate. I recently re-investigated some of the Vegetable Creek specimens (Hill 1988) and found that the original determinations of the specimens I looked at were as accurate as could have been possible at the time. This is in stark contrast to the work on Tertiary macrofossils which followed over the next 60 years, until Isabel Cookson and her co-workers at Melbourne University brought Australian Tertiary macrofossil studies into the twentieth century.

I am currently involved in a revision of the Vegetable Creek flora, and my admiration for von Ettingshausen's work grows as I proceed. I have located a large number of the type specimens described by von Ettingshausen, and most of them have been photographed (Table 1). If anyone is interested in seeing particular species I am able to supply photographs and relevant stratigraphic

information on request. In this centenary year of its Australian publication, this landmark paper should be remembered and its author, Baron Constantin von Ettingshausen (1826-1897) should receive recognition as one of the important pioneer botanists of the Australian flora.

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Table 1. List of fossil species described by von Ettingshausen (1888), except where other authorities are given, with revised names where appropriate. Those species marked with an asterisk have been located in Australian Museums and in most cases have been photographed.

Species

FERNS

Lygodium strzeleckii, **Pteris humei*, **P. torresii*

GYMNOSPERMS

Araucariaceae
**Dammara intermedia*, *D. podozamoides*

Cupressaceae
**Callitris prisca*, **Heterocladiscos thujoides*

Cycadaceae
**Anomozamites muelleri*

Pinaceae
**Pseudopinus wilkinsonii*

Podocarpaceae
**Dacrydium cupressinoides*, **Ginkgocladus australiensis*, **Palaeocladus cuneiformis*, **Phyllocladus asplenioides*, **Podocarpus praecupressina*

Taxodiaceae
**Sequoia australiensis*

MONOCOTYLEDONS

Gramineae
**Bambusites arthrostylinus*, *Poacites australis*

DICOTYLEDONS

Aceraceae
**Acer subintegrilobum*, **A. subproductum*

Apocynaceae
**Apocynocarpum sulcatum*, *Apocynophyllum crassum*, **A. etheridgei*, **A. kingii*, **A. mackinlayi*, *A. microphyllum*, *A. travertinum*, **A. warburtonii*, **Echitonium obscurum*, *Tabernaemontana primigenia*

Aquifoliaceae
Ilex macleayana

Araliaceae
Aralia elsmoreana, *A. freelingii*, **A. oxleyi*, **A. prisca*

Betulaceae
**Alnus maccoyi*, **A. muelleri*, *Betula daltoniana*, *B. derwentensis*

Caesalpiniaceae
**Cassia castanospermoides*, *C. cookii*, *C. flindersii*, *C. phaseolitoides*, *Copaifera australiensis*, *Leguminosites kennedyi*, *Podogonium macrocarpum*

Casuarinaceae
Casuarina cookii

Celastraceae
Celastrophyllum cunninghamii, *Celastrus cunninghamii*, *C. praeelaenus*, **C.praeeuropaeus*, **C. lefroyi*, *Elaeodendron subdegener*

Combretaceae
**Getonites wilkinsonii*

Cunoniaceae
Callicoma primaeva, **Ceratopetalum gilesii*, **C. macdonaldii*, *C. praearbutoides*, *C. woodii*, **Trachyphyllum myosotinum*, *T. obtusum*

Ehretiaceae
Cordia tasmanica

Elaeocarpaceae
Elaeocarpus basii, **E. muelleri*

Fagaceae
**Castanopsis benthamii*, **Dryophyllum howittii*, **Fagus benthamii*, **F. celastrifolia*, **F. hookeri*, **F. muelleri*, *F. risdoniana*, **F. wilkinsonii*, **Quercus austinii*, *Q. blamingii*, **Q. dampieri*, **Q. darwinii*, **Q. drymejoides*, *Q. edelii*, **Q. greyi*, **Q. haploneuron*, **Q. hartogii*, **Q. hookeri*, **Q. praephilippinensis*, *Q. tasmanii*, **Q. wilkinsonii*

Lauraceae
Cinnamomum hobartianum, **C. leichhardtii*, **C. nuytsii* (now *Laurophyllum nuytsii* (Hill 1988)), **C. polymorphoides* McCoy, *C. woodwardii*, **Diemenia perseaefolia*, **D. speciosa*, **Laurus australiensis*, *Sassafras lesquereuxii*

Loranthaceae
Loranthus kennedyi

Magnoliaceae
**Magnolia brownii*, **M. torresii*

Malpighiaceae
Banisteriophyllum australiense, **Malpighiastrum babbagei*

Monimiaceae
Hedycarya wickhamii, **Monimia vestita*

Moraceae
**Artocarpidium gregoryi*, **A. stuartii*, **Ficonium solandri*, *Ficus burkei*, *F. gidleyi*, *F. phillipsii*, **F. solanderi*, *F. willsii*

Myricaceae
Myrica eyrei, **M. konickii*, *M. pseudosalix*

Myrsinaceae
Myrsine stokesii

Myrtaceae
**Callistemophyllum beckeri*, **C. hackii*, **C. obliquum*, *C. swindenii*, *Eucalyptus delftii*, **E. diemenii*, **E. hayi*, **E. houtmannii*, **E. mitchellii*, *Myrtonium lanceolatum*, **M. obtusifolium*

Oleaceae
**Olea macintyrei*

Papilionaceae
**Dalbergia diemenii*, **Dalbergiophyllum affine*, **Dolichites coriaceus*

Piperaceae
**Piper felstmantlii*

Pittosporaceae
Pittosporum priscum

Proteaceae
**Banksia blaxlandii*, **B. campbellii*, *B. hovellii*, *B. lancifolia*, *B. lawsonii*, *B. myricaefolia*, *B. poolii*, *Dryandra benthamii*, **D. praeformosa*, *Dryandroides johnstonii*, *Grevillea proxima*, *G. wentworthii*, **Hakea duttonii*, *Knightia daltoniana*, **Lomatia brownii*, **L. castaneaefolia*, **L. evansii*, **L. finnisii*, *L. goyderi*, *L. praelongifolia*, **Persoonia murrayi*, *Rhopala parryi*, **R. sapindifolia*

Rhamnaceae
**Pomaderris banksii*, *Pomaderrites banksii*

Rubiaceae
Coprosma praecuspidifolia

Rutaceae
**Boronia harrisii*, **B. hookeri*

Salicaceae
Salix cormickii

Santalaceae
**Santalum frazeri*

Sapindaceae
**Cupanites selwynii*, **Sapindus gossei*, *S. tasmanicus*

Sapotaceae
Sapotacites achrasoides, *S. forrestii*, *S. huntii*, *S. oligoneuris*

Sterculiaceae
**Bombax mitchellii*, **B. sturtii*

Ulmaceae
Ulmophyllum oblongum

Verbenaceae
Premna drummondii

Incertae sedis
**Carpolithes amaranthaceus*, *C. gaertnerioides*, *C. morisoniaeformis*, *C. pygeoides*, *C. risdonianus*, *C. wetherellioides*, *Phyllites ficiformis*, *P. juglandiformis*, *P. ligustroides*, *P. mimosaeformis*, *P. phaseolites*, *P. populiformis*, *P. pyriformis*, *P. sophoraeformis*, *Sapindostrobus dubius*

AUSTRALIAN SCIENCE ARCHIVES PROJECT

Director: Professor R.W. Home
Senior Archivist: Mr.G.J. McCarthy
Department of History & Philosophy of Science
The University of Melbourne, Parkville, Vic. 3052
November 1986

The Australian Science Archives Project was established in March 1985 to locate, sort, list and index the archival papers of distinguished Australian scientists and scientific institutions.

What are 'science archives'? They may, and do, vary with individuals and disciplines. They include, in addition to correspondence of all kinds, professional or technical documents such as laboratory notebooks, experimental drawings and calculations, lecture notes, diaries, travel journals, reports and publications, photographs and other non-manuscript materials. The records will often also reflect the important role played by leading scientists in aspects of public life which affect many areas outside their professional work, whether as members of official committees, councils or advisory bodies, or through their influence as writers and thinkers. As well as science, their portrayal of social, economic, political or religious developments will be of great interest to historians.

The major service that the Project offers is its ability to move quickly into the field to ensure that records in danger of being lost or destroyed are saved. The Project has temporary storage facilities for records while they are being processed. Once processed, collections are transferred to an appropriate library or archive in agreement with the donors. As individual donors and receiving institutions have differing requirements, the Project has established an approach to archiving that is flexible and adaptable. It is not possible to process all papers that come within the view of the Project, so in many cases papers may be passed directly to an archive or library with only a narrative description being recorded in our files and a subsequent entry in the next Progress Report.

The listings, which also contain a career summary or an historical outline of the individual or institution in question, are published on the completion of processing and distribution to the donors, major libraries and archives. Further copies will be available for sale.

Progress reports produced twice-yearly (March and September) are distributed free of charge to interested individuals, libraries, archives and other institutions. They contain summaries of collections

processed, an account of those in hand and news of other interesting developments. If you would like to be on our mailing list please contact the address given above.

The Project which is located within the Department of History and Philosophy of Science at the University of Melbourne has a national role and is not committed to any specific geographical areas. The director of the Project, Professor R.W. Home is assisted by an Advisory Board of scientists, historians and archivists.

Table 1. List of botanists on the Archives of Science in Australia database

SURNAME	FIRST NAMES	BIRTHDATE	DEATH DATE
ABBOTT	Francis (jnr)	1834	1903
ARCHER	William	1820	1874
BAAS BECKING	Laurens Gerhard Marinus	1895	1963
BAILEY	Frederick Manson	1827	1915
BAKER	Richard Thomas	1854	1941
BARBER	Horace Newton	1914	
BASTOW	Richard Austin	1839	1920
BENTHAM	George	1800	1884
BETCHE	Ernst	1851	1913
BIDWILL	John Carne	1815	1853
BLACK	John McConnell	1855	1951
BLACKALL	William Edward	1876	1941
BLAKE	Stanley T.	1910	1972
BRAY	James Samuel		
BREWER	Ilma Mary	1915	
BROWN	Robert	1773	1858
BUNCE	Daniel	1813	1872
BURTON	David		1792
CALEY	George	1770	1829
CALVERT	James Snowden	1825	1884
CAMBAGE	Richard Hind	1859	1928
CAREY	Gladys		
CARRON	William	1823	1876
CHAMBERS	Thomas Carrick	1930	
CHEEL	Edwin	1872	1951
COLQUHOUN	Thomas Talbot	1904	
COOKSON	Isabel C.	1893	
CUNNINGHAM	Allan	1791	1839
CUNNINGHAM	Richard	1793	1835
DALLACHY	John	1808	1871
DEANE	Henry	1847	1924
DIETRICH	Amalie	1821	1891
DOVEY	Leonard G.		
DRUMMOND	James	1784	1863
DUCKER	Sophie Charlotte		
EVERIST	Selwyn L.	1913	1981
EWART	Alfred James	1872	1937
FITZGERALD	Robert David	1830	1892
FRANCIS	George William	1799	1865
FRANCIS	William Douglas	1892	1959
FRASER	Charles	1788?	1831
GARDNER	Charles Austin	1896	1964

GRAY	Edward		
GUILFOYLE	William Robert	1840	1912
GUNN	Ronald Campbell	1808	1881
HART	Thomas Stephen	1871	1960
HARVEY	William Henry	1811	1866
HERBERT	Desmond Andrew	1898	
HEYNE	Ernst Bernhard	1825	1881
HOLTZE	Maurice William	1840	1923
HOOKER	Joseph Dalton	1817	1911
LAWRENCE	Robert	1807	1833
LAWSON	Abercrombie Anstruther	1870	1927
MAIDEN	Joseph Henry	1859	1925
MOLLOY	Georgiana	1805	1843
MOORE	Charles	1820	1905
MORRIS	Albert	1886	1939
MOYER	Andrew J.		
MUELLER	Ferdinand Jackob Heinrich von	1825	1896
MacGILLIVRAY	John	1821	1867
McLENNAN	Ethel Irene	1895	1982
McLUCKIE	John	1890	1956
OLDFIELD	Augustus Frederick	1820	1887
OSBORN	Theodore George Bentley	1887	1973
PATTON	Reuben		
PESCOTT	Edward Edgar	1872	1954
REEVES	Hubert Trethowan	1894	1963
ROBERTSON	Rutherford Ness	1913	
RODWAY	Leonard		
ROGERS	Richard Sanders		
ROSS	Andrew	1829	1910
RUPP	Harman Montague Rucker	1872	1956
SCHOMBURGK	Moritz Richard	1811	1891
SHIPTON	Warren Arthur	1940	
SKERTCHLEY	Sydney Barber Josiah	1850	1926
SMITH	Lindsay	1917	1970
SPECHT	Raymond Louis	1924	
STUART	Charles	1802	1877
SWAINSON	William John	1789	1855
TATE	Ralph	1840	1901
TURNER	Frederick	1850?	1835?
TURNER	John Stewart	1908	
WALKER	Anna Frances		
WARDROP	Alan Buchanan	1921	
WEINDORFER	Gustav	1874	1932
WHITE	Cyril Tenison	1890	1950
WHITE	Janet Rose (Jean)		
WILLIS	James Hamlyn	1910	
WOOD	Joseph Garnet	1900	1959
WOOLLS	William	1814	1893

Sample entry - most entries lack some of these details and it is this information we require.

NEUMANN, Hanna (1914-1971) FAA
Mathematician

Professor and Head of Dept of Mathematics, School of General Studies, Australian National Univ 1964-69. Neumann was previously Lecturer and Senior Lecturer in Mathematics at the Universities of Hull and Manchester 1946-63.

Personal and scientific correspondence with papers relating to scientific organisations, associations and publishers including the Australian Mathematical Society and its Journal, the Australian National Univ Science Society and the Australian Association of Mathematical Teachers.
Sasser Libr, Canberra (MS 88) 56cm

Details include: surname, first name(s), life dates, awards (FAA orFRS), occupation, biographic note, record description including date/range of collection, repository, manuscript reference number or code and size of collection.

'SPINIFEX' L.: SETTING THE RECORD STRAIGHT

Petrus C. Heyligers
CSIRO, Division of Wildlife and Ecology,
PO Box 84, Lyneham, ACT 2602

In his review of *'Plant life of the Great Barrier Reef and adjacent shores'* Frodin (1988) writes that '*Spinifex hirsutus* is probably properly reduced to *S. littoreus*'. *S. littoreus* is nowhere mentioned in that book, but Cribb & Cribb (1985, p.182-183) describe and picture *S. hirsutus*. However, when this book was published, the specific epithet *hirsutus* was no longer correct for the plants occurring along the east coast of Australia because Craig (1984) had reinstated the name *S. sericeus*. Frodin's remark is not the only confusing statement about *Spinifex* taxonomy which recently has appeared in the literature. For instance, according to Webster (1987) '*Spinifex sericeus* is morphologically similar to *S. hirsutus* and the taxonomic relationship between these taxa is unclear. Male inflorescence of this species is similar to that of *S. hirsutus*'. Being familiar with both species in their natural habitat I cannot concur with this view, and, prompted by Frodin's assertion, I shall try to allay the confusion which obviously exists about the features which distinguish the four species in the genus *Spinifex* L., viz. *S. littoreus* (Burm. f.) Merr., *S. longifolius* R.Br., *S. hirsutus* Labill. and *S. sericeus* R.Br.

S. littoreus is native to the coastal areas of southeastern Asia, from India to southern Japan (Lazarides 1980), and extends through Malesia to New Guinea, where it is rare (Henty 1969). It has also been collected on one of the Ashmore Islands, NT, far out in the Timor Sea (*J. Hicks 91*, October 1983, CANB). It has not been recorded from another Australian shore, which is just as well because the plants have inrolled, rigid, ferociously pungent leafblades, a characteristic which inspired the generic name.

S. longifolius has glabrous leaves, like *S. littoreus*, but these are longer and not as stiff and spiky; moreover the plants have a tussocky rather than a spreading habit. This species occurs from Geographe Bay, WA along the western and northern coasts of the continent to the tip of Cape York (Webster 1987) and beyond, to islands in Torres Strait (McDonald 1979) and the shore of the Central District, Papua New Guinea (Henty 1969). *S. longifolius* has also been collected from some islands in the northern section of the Great Barrier Reef as far south as the latitude of Cooktown (McDonald 1979), but I have found no records of this species occurring anywhere on the eastern mainland coast.

As aptly conveyed by their specific epithets, the other two species of *Spinifex* are conspicuously pubescent. *S. hirsutus* has broad, rather flaccid leaves and relatively short, stout stolons with short

internodes; *S. sericeus* has narrower, often inrolled leaves and slender, far-spreading stolons with long internodes. Differences in the inflorescence are especially marked in the male plants. The spikes in male inflorescences of *S. hirsutus* are more numerous and form denser clusters than those of *S. sericeus*. Moreover, most rhaches in *S. hirsutus* bear spikelets from near the base rather than being barren in the lower third as in *S. sericeus*, a characteristic which enhances the dense appearance of the inflorescences. The bristles in the female inflorescence of *S. sericeus* are longer and the spikelets less numerous than in *S. hirsutus*, hence, as in the male, the inflorescences of female plants of *S. sericeus* have a more lax appearance than those of *S. hirsutus*. Bentham (1878) regarded these two taxa as one species, *S. hirsutus*, an opinion which may have been influenced by the fact that some herbarium sheets of Labillardiere's types carry mixed collections: specimens from Esperance Bay, WA and Tasmania, the latter clearly being male plants of *S. sericeus* (see Figs. 1 and 2 in Craig 1984). *S. hirsutus* is distributed from Cervantes, c. 150 km north of Perth, to South Australia, *S. sericeus* from South Australia to the east coast of Cape York Peninsula.

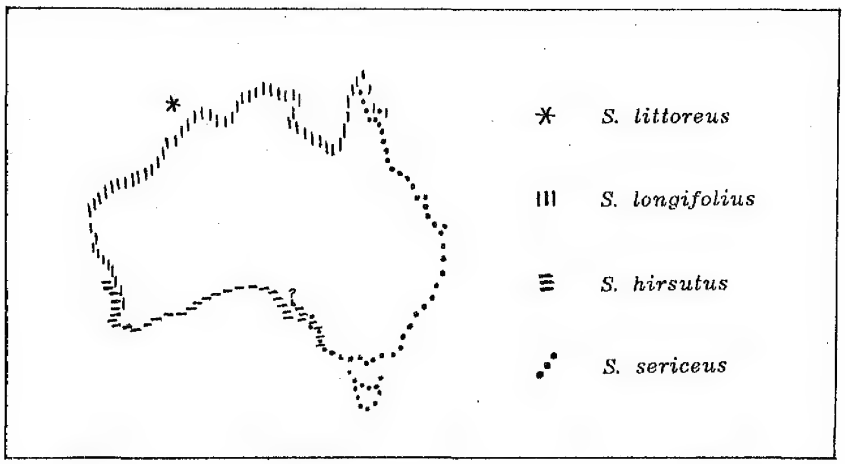
S. sericeus was not 'rediscovered' until the 1970s. When the WA Department of Agriculture used *Spinifex* seed from Stradbroke Island, Queensland, for dune rehabilitation, it became apparent that the plants were different from local stock. Thus it was that Craig (1982, 1984) undertook research into the relationships between the various forms of *Spinifex* present in southwestern WA. Using morphological, chromosomal and isozymal characteristics, she found that:

1. because of marked differences between the west and east coast plants of *S. hirsutus*, the name *S. sericeus* should be reinstated for the latter,

2. *S. alternifolius* Nees, a taxon rarely mentioned in the literature, and in appearance rather like *S. longifolius* but with a sparsely pubescent lower leaf surface, was a hybrid between *S. longifolius* and *S. hirsutus*,

3. a population on City Beach, Perth, morphologically only slightly different from *S. alterniflorus*, was a hybrid between *S. longifolius* and *S. sericeus*,

4. a single plant at the same location 'difficult to distinguish visually from *S. hirsutus*', but, on closer inspection 'morphologically intermediate' between *S. hirsutus* and *S. sericeus*, was a hybrid between these two species.



Map of *Spinifex* distribution in Australia

Craig (1984) used only limited information to assess species distribution, hence her Fig 3 shows a gap across the Nullabor Plain and Eyre Peninsula separating the ranges of *S. hirsutus* and *S. sericeus*. Webster (1987, Fig 211) extended the known range of *S. hirsutus* and filled in this gap on the basis of collections and observations I made in 1979. Unfortunately, Craig's map must have been taken at face value when the *'Flora of South Australia'* (Jessop & Toelken 1986) was revised, because *S. sericeus* is the only species treated for that State. In order to determine the eastern limit of the distribution of *S. hirsutus*, I reconnoitred the dunes of southeastern South Australia and western Victoria in November 1986 when both species were flowering. I found *S. hirsutus* well-represented on the Younghusband Peninsula, becoming sparser in the dunes near Cape Jaffa and occurring sporadically down to Piccanninnie Ponds near the South Australian-Victorian border.

I also found plants which were similar to *S. hirsutus* vegetatively, but which could be regarded as *S. sericeus* on inflorescence characteristics. The collections have yet to be studied in detail, but I surmise that these particular plants are hybrids. As yet, I have no idea how far *S. sericeus* spreads to the west, hence there remains a task for the beachcombers among you! It would be of interest also to determine whether populations of *S. sericeus* and *S. longifolius* co-occur on some of the northern Great Barrier Reef islands or on the eastern coast of Cape York Peninsula and if so, whether hybrids have been formed.

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LAUNCHING OF 'FLORA OF AUSTRALIA', VOLUME 19

G.M. Chippendale
4 Raoul Place, Lyons, ACT

At the launching of Volume 19 (*Eucalyptus* and *Angophora*) in the Sydney Botanic Gardens on Thursday 11 August, Peter Bridgewater read a short speech which was to have been spoken by Senator Graham Richardson.

At this function it occurred to me that I might be asked for a response, and I started thinking up some words. Being in the Sydney Botanic Gardens ... I can't get used to Sydney Royal Botanic Gardens ... where I worked from 1936-1954, I remembered that in this period, particularly when I was 15-19 years old, I used to take specimens into Mr Blakely. They were mostly weeds, as we lived in Paddington long before it was trendy. Mr Blakely always gave me names which satisfied me... he never mentioned that it was being revised, it was a hybrid, it was in a difficult group or other problems. He was most kindly. Then, when he was retiring in 1940, he gave me a pair of his dissecting needles. They are easily seen to have his initials W.F.B. on the handles in his distinctive writing, even though scratched on metal.

At this time when I was employed as a Messenger, but working as the Herbarium Attendant (Technical Assistant) with no probability or thought of being a botanist, I like to think that there was something prophetic in a gift from Mr Blakely to me. Even after graduation after the War, my interests were cultivated plants, then Northern Territory plants, with no special interest in eucalypts.

I would have said something like this at the book launching, and perhaps some other things, but I wasn't asked. However, the occasion was a very happy one for Thelma and myself in talking with lots of (botanical) friends.

IN SUPPORT OF AN AUSTRALIAN SYSTEMATIC BIOLOGY SOCIETY

Christopher Quinn
School of Biological Science, University of New South Wales

I strongly support Michael Crisp's arguments for the broadening of our Society to encompass the systematics of all groups of organisms. Far from being swamped, it seems to me we are more likely to be stimulated by an influx of new members. I am not convinced that our zoological colleagues are necessarily 'more aggressive', but in the present climate of political opinion, some aggression might help us be heard in the corridors in Canberra.

More interchange of views with zoological taxonomists might also be of assistance in our efforts to improve the stability of nomenclature (see the articles by R.J. Hnatiuk and D.L. Hawksworth in *'Newsletter'* 55), for in some respects the provisions of the Zoological Code are superior to ours. Discussions with zoologists on how the application of those provisions affects the 'practice of their craft' might dispel some of the objections that are raised by our more conservative members whenever such changes are suggested.

It seems to me that a broadening of the Society, in a way that crosses the traditional boundaries between zoology and botany so as to bring together people who share the common purpose of unravelling the relationships and evolutionary pathways in our biota, is likely to be much more rewarding than the previous proposal for a 'Botanical Society of Australia'. One can certainly see major differences between some areas of botany and zoology. The common ground that unites plant and animal physiologists, for example, is much more limited than it is for taxonomists. Even so, there is a widespread move towards combining botany and zoology into schools of biology in our universities. Surely, as Michael argued in his proposal, the separation between botanical and zoological taxonomy is totally artificial. Perhaps the main thing that divides us is the meaning we attach to the term 'taxonomy'; it seems almost a dirty word to some of my zoological systematist colleagues. But if we get them into the Society, I'm sure we can educate them - why, we might even be a civilizing influence on them! So let's roll out the welcome mat.

A REPLY TO BEAN

Denis J. Carr and Stella G.M. Carr
Phytoglyph Press, 5a Arkana Street, Yarralumla, ACT 2600

The quality and value of Bean's comments on our two books, *'Eucalyptus I and II'* are revealed by his statement that 'none of these 8 (new) species (of the *'foelscheana* group') is clearly differentiated from *Eucalyptus latifolia*'. In fact, all of the relevant specimens which had been filed in herbaria had been designated by their collectors or others as *E. foelscheana* or *E. porrecta*, or, if from WA, as *E. terminalis* or *E. dichromophloia*. None had been called *E. latifolia*. Many of the specimens had been examined by such notable eucalyptologists as Mueller, Maiden, Blakely and Blake. *E. latifolia* is a small-fruited bloodwood quite unlike any of the species of the *'foelscheana* group'. Bean claims that the entities of the group are 'ill-defined'. The book devotes no fewer than 78 pages to the descriptions of the 10 species. Readers are invited to compare the detail and comprehensiveness of the descriptions with that of a new species *E. lamprophylla* recently published in a refereed journal.

Another absurdity of Bean is the claim that a character common to *E. nowraensis* and *E. gummifera* is the 7-flowered inflorescence. This is so, but the majority of eucalypts have 7-flowered inflorescences! If *E. nowraensis* is a hybrid why are the proximal inflorescences not 3-flowered, like the supposed parent species, *E. maculata*, as demanded by Pryor's rule (*'Proc. Linn. Soc. NSW'* 79, 1954)? Until someone raises a population of seedlings of *E. nowraensis* (which we tried to do) and shows them to be non-uniform and to segregate towards *E. gummifera* and *E. maculata*, it must be regarded as a species in its own right. Adducing no evidence, Bean queries whether dehiscence-pattern is a species-specific feature. When a statement is made on the basis of scientific evidence it is open to question but it can only be refuted by evidence to the contrary. We have studied the dehiscence patterns of a number of specimens of each species we have investigated. Until Bean (or someone else) demonstrates in a larger study that our conclusions are wrong they must stand. As we show in our book, *E. nowraensis* has a fruit structure and a dehiscence mechanism which are quite different from those of either *E. gummifera* or *E. maculata*. All the fruiting specimens we have seen of *E. nowraensis* have the same structure and mechanism.

Bean's criticism is decidedly unbalanced and unfair. In comparing *E. dolichocarpa* and *E. brachycarpa* (named so because of the marked differences in fruit shape) he omits reference to the following passage (p.225) '*E. brachycarpa* differs from *E. dolichocarpa* in its small, glabrous rather urceolate fruits, which have either no neck or a very short one, the smaller leaves with shorter points, the smooth only occasionally scurfy flower buds, the style usually not in a pit ... the presence of oil glands in the stamen filaments and in the anther connectives ... The two species are also quite distinct in other phytoglyphic features'. To base a comparison (as Bean does and Kleinig tried to do) solely on measurements of organs would be like a police description of a suspect which gave only height and shoe size. Carr 23 and 29 were wrongly described in *'Eucalyptus 1'*. The fact is that we admitted this error together with other corrections and published the information in Chapter 9, pp 309-319 of *'Eucalyptus II'*. Until our studies of the bloodwoods of north-western Western Australia commenced we (like others) were constrained to file our specimens under existing names (such as *E. terminalis* etc). Inevitably as our information grew we were able to sort out the specimens into new entities. Bean claims that we have not seen the new species from Western Australia in the field, but then admits that Mrs Carr collected many specimens from around Derby in 1966 (in company with Alan Payne). A number of previous collections had been made using Derby as a convenient base. More recently, Mr M.H. Marchant and Marion Blackwell have made collections for us from that area. It is plainly ridiculous of Bean to draw the conclusion that Derby is therefore 'the centre of speciation for the bloodwood group'.

Bean raises metaphorical hands in shock and horror that a few (of the very many) specimens have been cited in different contexts. In the note *"Eucalyptus II"*: Errata' published alongside his letter we admit those errors which arose from a certain sloppiness with our specimen card index. But the individual specimens, now dispersed to various herbaria, are uniquely labelled and can therefore mislead no

serious student of the *Corymbosae*. Bean has not taken the trouble to examine these specimens. As to Carr 1413 and 1416 from Shoal Bay Landing (cited in his Table 2), we were shown a thicket of bloodwoods at that locality by Geoff Stocker and were told that it was thought to be *E. porrecta*. The characters of the rather scrubby trees, none with fully-mature bark, were clearly variable and we made one mass collection (1413) and some others. Examination showed that *E. porrecta* was present but so also were *E. polycarpa*, *E. erubescens* and *E. tokwa* (Carr 1416A) and *E. darwinensis* (Carr 1416B). This interesting population may have been eliminated with the construction there of the satellite monitoring station of the Defence Signals Directorate.

Bean claims to be a 'keen' (presumably amateur) 'student of the genus *Eucalyptus*'. He rightly points to the necessity of microscopical studies in understanding eucalypt species. There is still a role for the amateur in science, in botany for instance, for field observations which can lead to the discovery of new species. In astronomy, the Uniting Church minister in the Blue Mountains who has discovered a record 27 supernovae has done so with the aid of a telescope. The many amateurs who recently set up their Celestrons to make photoelectric recordings of the occultation of a star by the planet Uranus are also very well-equipped. Surely it is time for keen amateur botanists (and some benighted professionals) similarly to equip themselves with the very modest compound microscope and easily-obtained reagents (equipment now available in most school laboratories) which give access to the sorts of characters which we have found useful in describing and identifying plants? Our own studies have often been nothing more than systematic investigations of populations which others (eg Hyland and Stocker at Atherton, Stocker and Byrnes at Darwin) had already recognised as comprising distinctive but unnamed entities in their regions. Bean claims also to have personally discovered several unnamed species. The difference between the amateur and the professional (in botany as well as in astronomy) is that the amateur astronomer (eg) may be the first to see a supernova, but he must leave its further investigation to the professionals who can deploy the most advanced techniques. Since many of the new bloodwood species were recognised initially as different entities in the field it is silly to claim, as does Bean, that when they are described and named, they are of no use to the 'field person', just because their full investigation required a full range of laboratory techniques!

Bean has no access to 'sophisticated microscopic equipment' yet he presumes to challenge the statement that 'the general consensus among palaeobotanists and taxonomists is that the pattern and shape of leaf epidermal cells and the features of the cuticle are species-specific and differ from one taxon to another'. In lieu of making his own investigations we suggest that Bean (and others) would be advised to read the extensive literature, some references to which are given on pp. 4-7 of *'Eucalyptus II'* (and there are more in Carr and Carr 1988a and c) before making such a challenge. In particular, Bean should read the (1977) monograph by Barthlott and Ehler on the epidermis as well as the papers in Alvin *et al* (1982). Important and useful as the phytoglyphic and other microscopic features are, we do not (*pace* Bean) place total reliance on them in studies either of the *Corymbosae* or of species of other groups of eucalypts. Phytoglyphically, *E. sideroxylon* and *E. leucoxylon* are indistinguishable. Indeed, given a leaf, a flower bud and a fruit of one of these species, without a knowledge of their provenance or of the associated bark type, it is impossible to assign the specimens to one or other of the two species. On the other hand, the phytoglyphic characters, both qualitative and quantitative of many bloodwood species are sufficiently distinctive to be indispensable in identification. The two books lack the mass of information derived from our phytoglyphic studies, but a survey in Carr and Carr 1988a to some extent repairs that omission. In our research for *'Eucalyptus II'* we extended the cuticle studies to the stamens and nectary. Carr and Carr 1988c gives an account of the application of such studies to the species of Central Australia described in *'Eucalyptus I'*. These more recent studies fully corroborate the decisions made earlier concerning those species using only qualitative phytoglyphic information, as well as considerations of macroscopic features, in addition to the characters of seedlings and ecological information.

Note: Some months ago we were shown a copy of Mr Bean's first draft of the letter and we pointed out that a number of his criticisms were in fact already dealt with as corrections in *'Eucalyptus II'*. Mr George (Acting Editor) telephoned Mr Bean and suggested removing these (they have not been

removed) and submitting a second draft stating his professional standing (not done). We also sent Mr. George our note, *"Eucalyptus II*': Errata' (hurriedly written to meet the deadline and therefore containing an error - so much for reliance on memory - concerning Carr 23 [see above]), but this was wrongly taken to be our reply to Bean's letter and held over for later publication. Bean has removed several rather foolish passages from his second draft but it still contains many absurdities and unwarranted and snide comments.

Like Kleinig, Bean is a seed collector. He claims 'familiarity with virtually every named species of *Eucalyptus* in Queensland', which may explain his aberrations concerning *E. latifolia*, which is absent from that region except for Prince of Wales Island (*'Eucalyptus II*' p 321). Why is it that the two biased, scurrilous, unfair letters dealing with our two books published in the *'ASBS Newsletter'* have both come from seed-collectors? Do they feel their lucrative, idyllic, sylvan livelihood threatened by a proliferation of new species which they must grapple with or decry? If so, they must steel themselves to deal with an avalanche of new acacias, a plethora of laurels, a 'bonanza' of verticordias etc, which are in the pipeline due to ongoing revisionary studies of the Australian flora.

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ASBS BUSINESS

MINUTES OF THE 11TH GENERAL MEETING OF THE AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

Laurie Haegi
Adelaide

The 11th General Meeting of the Society was held at Ormond College, University of Melbourne, Parkville, Victoria at 5.30 pm on Wednesday, 25 May, 1988

1. Attendance

The President, Dr Barbara Briggs, welcomed the 42 members present, most of whom were attending the Symposium on the Development of Systematic Botany in Australasia, organised by the Society.

2. Apologies

Barbara Barnsley, Gordon Guymer, Helen Hewson, Bernadette Hince and Judy West.

3. Minutes of the 10th General Meeting

The minutes were published in *'Aust. Syst. Bot. Soc. Newsletter'* 48: 15-20 (1986). Moved Alex George, seconded David Symon that the minutes as published be accepted as a true and correct record of the meeting. Carried.

4. President's Report

The President, Barbara Briggs, reported as follows:- 'Since September 1986 we have seen continuation, consolidation and further development of the Society's programs. A major step was the incorporation of the Society on 26 November 1986, which followed a long sequence of steps to develop and accept a revised constitution and to meet the requirements for incorporation. We much appreciate the effective work of our Public Officer, Michael Crisp in achieving this. Incorporation provides a very necessary safeguard for the Society and for its office bearers in conducting its activities.

The fact that we are here at this Symposium demonstrates the continuation of the varied and worthwhile series of ASBS Symposia. For this we acknowledge the excellent initiative and work of the organising committee and particularly of Philip Short. Since the proceedings of this Symposium will be published, the work for Philip and his colleagues, as well as the impact of the Symposium and its value to the Society, will continue long after the participants have left this meeting.

The *'Newsletter'* has continued to be the most tangible aspect of the Society for many of its members and has set a fine standard of quality and interest. Especially notable was the December 1987 issue that included papers from the Boden Conference. As members would be aware, Helen Hewson has recently resigned from the editorship. The Society and its members have benefited greatly from Helen's outstanding work as editor. We are very pleased to welcome Barbara Barnsley of the Australian National Botanic Gardens as editor. Helen, Alex George and Michael Crisp have offered their continued assistance to her.

Membership has increased and now stands at 330 Australian members and 22 overseas subscriptions.

The *'Flora of Central Australia'* - which has contributed so much over the years to the Society's good financial situation - was expected to go to a new edition before now. However the existence of unsold stock has prevented this occurring. Sales of the *'Proceedings of the Alpine Symposium'* have gone well. The Society's publications were exhibited at the XIV International Botanical Congress at Berlin, but the organisation of the book exhibit there was unlikely to have promoted many extra sales. The publication of the *'Wet Tropics Symposium'* is in the hands of the Ecological Society of Australia, which jointly organised that meeting. ASBS expects to receive some funds from its share in the venture but this is still awaited, as is the publication of the papers from that Symposium.

The Society's congratulations were conveyed to Dr Jim Peacock on receiving the BHP Bicentennial Award for Excellence. Although we certainly cannot claim him as a plant systematist, it was pleasing to see such an outstanding recognition of a botanist and one whose administrative responsibilities include an important herbarium with its research programs in systematic botany. This follows the previous award to Dr Len Webb in 1986, so Botany has received good and well-earned recognition.

The Society has continued its membership of FASTS, the Federation of Australian Scientific and Technological Societies, and I was our representative at a general meeting of that body in 1987. In recent months, since that meeting, FASTS has been increasingly vigorous in its promotion of science.

The vitality of local chapters has varied greatly, as reports - or lack of reports - in the *'Newsletter'* show. Where there are active local chapters this does so much to further the aims of ASBS.

Through the period since the last general meeting, the *'Newsletter'* Editors, Council Members, Symposium Organisers and Chapter Conveners have been active in furthering the Society and its aims. All Australian systematic botanists and the Society are indebted to them and I would especially express my own thanks for the excellent support that all have given'.

5. Treasurer's Report

The Treasurer, Don Foreman, presented the following report together with summaries for the financial years of 1986 and 1987.

'I am pleased to report that the Society continues to operate on a sound basis with 330 Australian members at the beginning of 1988. The financial position of the Society is summarized in the two audited statements attached to this report.

The Society continued to rely on subscriptions from its members as its main source of revenue to fund activities such as the production of the *'Newsletter'* four times a year and the sponsoring of these all important meetings of members. Subscriptions to the Society in 1986 totalled $3,271.18, while in 1987 it rose to $5,336.30 (partly due to the recovery of arrears owed by some members).

This income has been supplemented to a significant extent by interest gained from various investment accounts. In 1986 this amounted to $2,626.53 and in 1987 to $2,423.14.

Additional income has come from royalties from the sale of the proceedings of the *'Evolution of the Flora and Fauna of Arid Australia'*. Donations have also been received from various sources such as the Australian Academy of Sciences ($4,500), Australian National Botanic Gardens ($420), both towards the Boden Conference and the Royal Botanic Gardens, Sydney ($200) towards the History Symposium.

The major regular expense faced by the Society continues to be the production of the *'Newsletter'*. In 1986 total costs including postage and the printing of additional envelopes was $2,628.74. In 1987 the cost was $2,268.16 for 3 *'Newsletters'*.

During 1986-7 the Incorporation of the Society was completed. Total costs involved were $117.60 (plus an unspecified amount of Mike Crisp's time and shoe leather).

Since 1986 the Society has been a member of FASTS (Federation of Australian Scientific and Technological Societies). We pay a subscription of $2.50 per year per member.

The cost of auditing the Society records by a registered accountant has now been added to the regular expenses to be met by the Society. In previous years the cost of having the Society records checked has been fairly minimal.

A growing number of members are now taking advantage of the offer of low cost subscriptions to various CSIRO journals. The Society makes no profit from this exercise and absorbs any costs involved. The offer is usually made sometime in October and is advertised in the first available *'Newsletter'*. Returns usually are required by 1st December. To obtain the cheap rate members must order through the Treasurer and in general late orders cannot be accepted.

In 1986 the Society purchased 200 copies of the proceedings of the *'Flora and Fauna of Alpine Australia'* at a cost of $2,700.00. Copies were provided to the main contributors at no charge or at cost price. The remaining copies were made available to members at a reduced rate and by the end of 1986 $1,030.50 had been recovered and at the end of 1987 a further $1,010.55 had been returned to the Society. Since then a further $152.08 has been received making a total recovery of $2,193.13, with some copies remaining unsold.

Coming into 1988 the Society remains in a strong position with most members showing their support by paying on time or responding promptly to my gentle reminders. I would like to remind members to let either me or the Secretary know of any changes of address so the Society's membership lists can be kept up to date. The names and addresses of all current Office Bearers appear on the inside front cover of all issues of the *'Newsletters'*'.

It was moved, Don Foreman, seconded, John Conran, that the reports as presented be accepted. In discussion it was asked whether an assets and liabilities statement had been prepared, including the value of non-cash assets such as unsold books and *'Newsletters'*. Don reported that this had not been done formally but that the information was available on enquiry. Carried.

6. 'Newsletter' Editors' Reports

Alex George presented the following reports on behalf of Helen Hewson and Barbara Barnsley in their absence.

Helen Hewson

'I wish to thank the Society for the privilege of being Editor of the *'ASBS Newsletter'* for two years (1986-1987). During that time the only real difficulty with the job lay with the actual mechanics. The membership spontaneously contributed in a way which has kept the *'Newsletter'* 'full' and interesting. I am, however, disappointed at the failure of the membership to make better use of the *'Newsletter'* as a convenient medium for recording more of our history. It is true that 'today's happenings are tomorrow's history'. In the Bicentennial year and in the context of the current Symposium I would like to stress again that the *'Newsletter'* is tending too much to be just another journal.

I wish Barbara Barnsley, my successor, good luck'.

Barbara Barnsley

'It is with some trepidation that I have accepted the position of *'ASBS Newsletter'* Editor and hope that I can keep up the high standard of my predecessors. I will be relying on the advice of Helen Hewson and Alex George who helped with the last edition and the various ASBS members who also work at ANBG with me.

As Editor I will be relying on the material sent to me and take this opportunity to ask all concerned to help with contributions, in particular more information concerning the various Chapters, their meetings, news of members, intended and just completed field trips and of course up and coming lectures and conferences'.

Discussion

The importance of the *'Newsletter'* to the membership was re-affirmed by the discussion which followed these reports. There was general agreement that the *'Newsletter'* was primarily for news; pleas for more Chapter news, book notices and information on herbaria were made. Betsy Jackes suggested it would be valuable to include in all *'Newsletters'* the name (and address, telephone and FAX numbers - Helen Hewson) of the current Australian Botanical Liaison Officer. This suggestion received general support and the President undertook to discuss it with the Editor.

7. Incorporation of Society and New Constitution

The Society's Public Officer, Michael Crisp, briefly re-iterated that since the last General Meeting, the Society had a adopted a new Constitution and had become an Incorporated body. Copies of the new Constitution had been distributed with the *'Newsletter'*.

8. Subscription Rate

Don Foreman, Treasurer, reported that in spite of increased costs in some areas, his and Council's recommendation to the Meeting was that membership subscription be held at its current rate of $20 with a reduction to $16 for payment by 31 March. He pointed out that the rate was likely to be reviewed again sooner than usual with the next General Meeting expected to take place in a little over twelve months. Moved, Don Foreman, seconded, Rex Filson, that the rate remain unchanged. Carried.

9. 'Flora of Central Australia'

Rod Henderson, member of the Editorial Committee, reported that the publishers, Reeds, had recently indicated that their second printing of the *'Flora'* was selling only slowly and 1300-1400 copies remained unsold. Under these circumstances they were unwilling to go ahead with the new edition members had prepared. John Jessop, Editor-in-chief, who had been dealing with Reeds, had indicated to them that this was unsatisfactory since the new edition manuscript had been prepared at their request and at considerable effort and cost.

Barbara Briggs stated that Council had resolved to make every effort to have the new edition published, if this were at all possible. Avenues to follow up included examining whether Reeds had any contractual obligations to the Society and if necessary whether another publisher could be interested in publishing the new edition. Some members present questioned whether there would be sufficient sales for a second edition at this stage while others suggested it could be published as a *'New Flora of Central Australia'* given the very considerable changes from the first edition.

10. Future Activities.

a) Sydney Symposium

Barbara Briggs reported that, as indicated in the *'Newsletter'*, a small committee had been formed in Sydney with the offer that it run the next symposium for the Society. In the absence of other proposals it was going ahead and sought the support of the current meeting for its ideas and comments on the proposed approach. Since the notice the committee's ideas had developed further and a narrower topic and shorter conference were now proposed, with the suggested title 'Plant Systematics in the Age of Molecular Biology'. It was planned that key-note speakers would present papers on protein and DNA sequencing and related subjects and systematics, and that this part of the program would largely be a learning experience for most members attending. The need for a second topic for the Conference had therefore been identified: 'The Australian Flora and Its Evolution' was suggested, with contributions in the form of posters invited from prospective participants generally. At this time the tentative dates were the 5th and 6th July, 1989.

There was general support for this proposal from the floor. Considerable discussion centred on the form of presentation for the second symposium - some members preferred to give papers rather than present posters. The possibility of opening up the main topic to zoological papers, once the symposium was established, also received support. The division of time between the two topics over the two days was also discussed, with the expectation that more than an afternoon might be required if some contributions on the second topic were in the form of papers. These points would be further discussed by the committee and firmer details would be communicated in the near future.

b) Publication of Current Symposium Proceedings

Philip Short reported that he had initial discussions with the publishers Robert Brown and Associates of Bathurst, who are publishing Don McGillivray's *Grevillea* revision with the Royal Botanic Gardens, Sydney. They had expressed keen interest in the *'Proceedings'*, and were also able to offer overseas marketing outlets through their connection with the Dutch publishers, Brill. Some members present felt the Society should publish the *'Proceedings'* on its own from camera-ready-copy rather than hand the material over to a publisher. Problems of marketing, distribution and storage were raised and the alternative of the Society investing some funds in a joint publishing venture with a small publisher who

could provide these facilities received more support. Philip and Barbara agreed to look into a range of possibilities, with a view to publishing the *'Proceedings'*, in Brian Morley's words 'quickly but elegantly'.

11. Any Other Business

a) Support for 'Flora of Australia'

Barbara Briggs referred to the current rate of production of volumes of the *'Flora'*, which was well below the rate originally aimed for. The limiting factor was the small editorial staff in the Bureau of Flora and Fauna. It had been suggested that the Society and its members write to the relevant Minister, Senator Graham Richardson urging that more funds be allocated to this already successful project to speed up publication and allow its completion within a reasonable time. It was moved, Rex Filson, seconded, Darrel Kraehenbuehl that Council write as outlined. In discussion it was suggested that this issue could also be pursued through FASTS. Barbara agreed to raise the matter with our representative, Bob Johnson. Carried.

b) National Research Priorities

Barbara Briggs outlined the contents of a letter she had received as President from the Chairman of the Biological Sciences Interim Committee of the Australian Research Council. This invited Societies to assist in determining priorities for research in the biological sciences, in relation to the Government's move to set national priorities in research. Jeremy Bruhl voiced the concern that support for 'pure' research in areas like systematics and biology generally was declining because of increased emphasis on applied science. Referring to the previous item, even support for the *'Flora of Australia'* alone, in the absence of a more general call for maintenance of funding of research in systematics could be damaging. The politicians were likely to conclude that funding the *'Flora'* would meet the requirements for research funding in plant systematics. Other members present confirmed the need for researchers, academics and teachers to draw the attention of the community to the important contribution made by our area of science, both at the state and federal levels. Barbara Briggs agreed Council could co-ordinate lobbying of this kind from the Society as a whole and requested that it be provided with details of particular cases, and that individuals do their part in writing letters also.

c) FASTS Call to Action

Copies of a second letter, from the FASTS Executive, dealing with another aspect of the issues discussed under 11b were distributed. FASTS was seeking the support of individuals and societies in calling for a scientist to be specified among appointments to the National Board of Employment, Education and Training proposed in new legislation before Federal Parliament. This Board, to which the proposed Australian Research Council would report, would be responsible for recommending the overall allocation of financial assistance by the Commonwealth to research. In the current wording the Board would be made up of people with expertise in trade unions, business, industry, education and training. The meeting agreed that Council write in support of the FASTS stand.

d) A Broader-based Systematic Society?

Michael Crisp proposed that the Society consider broadening its base to include zoological systematics. In Canberra, zoologists were joining ASBS because there was no similar society in zoology. They found that issues discussed by systematic botanists were often relevant to them also and considerable interest had been expressed by zoologists in the Boden Conference issue of the *'Newsletter'*. Michael pointed out that in fact we had much in common with systematic zoologists including history, concepts of rank, synthesizing evidence into classifications, new methods and approaches such as molecular biology, relevance of cladistics, and on a more practical note problems such as those just discussed, of declining government support for research. Views expressed by members were somewhat polarized and although Michael's proposal received much support, there was a very strong voice advocating maintenance of the *status quo*. These members felt that the current success of the Society related substantially to its ability to fill a niche and cater very effectively for its

members' needs. At the same time liaison with related branches of science was facilitated through joint meetings and other similar ties. It was agreed that further discussion of the subject could take place at the Chapter level and perhaps in the pages of the *'Newsletter'*.

e) Symposium Topic

Petrus Heyligers suggested that the Society should consider as a topic for a future symposium how far we have come in 15 years with conserving our native flora.

12. Announcement of Incoming Council

The following Council of the Society for the coming term was announced. No ballot was necessary as only one nomination was received for each position on the Council.

President	Barbara Briggs
Vice-President	Judy West
Secretary	Barry Conn
Treasurer	Don Foreman
Councillors	Michael Crisp
	Gordon Guymer

Barbara Briggs proposed a vote of thanks to Rod Henderson and Laurie Haegi each of whom had served on Council for four terms, since 1981.

L. Haegi,
Secretary
16 June 1988

SUMMARY OF TREASURER'S REPORT FOR THE FINANCIAL YEAR ENDED 31st DECEMBER 1987

CREDIT FOR 1987

Carried Forward 31st Dec. 1986		18027.21
At Bank	2787.31	
On Deposit	15239.90	
Interest		2423.14
Commonwealth Savings Bank	118.34	
Accrued	544.80	
Term Deposits	1760.00	
Subscriptions		5336.30
Publications		2564.91
'Flora and Fauna of Alpine Australasia'	1010.55	
'Evolution of the Flora and Fauna of Arid Australia'	79.36	
Subscriptions to CSIRO Journals	1475.00	
Donation from Royal Botanic Gardens Sydney towards costs of History Symposium		200.00
Term Deposit		**1400.00**
Total Income		**29951.56**

DEBITS FOR 1987

Printing *'Newsletters'*		1536.00
'Newsletter' 49	426.00	
'Newsletter' 50	555.00	
'Newsletter' 51	555.00	
Typing *'Newsletters'*		349.55
'Newsletter' 50	101.05	
'Newsletter' 51	48.50	
M. Barlow	200.00	
Postage *'Newsletters'*		382.61
'Newsletter' 49	113.40	
'Newsletter' 50	155.29	
'Newsletter' 51	113.92	
Bank Charges		14.15
FDT	8.60	
FID	3.05	
Charge on returned cheque	2.50	
Subscription to FASTS		1865.00
1986(part)/1987	1090.00	
1988	775.00	
Subscriptions for CSIRO Journals		1590.00
(includes $115.00 for late subscriptions)		
Incorporation Costs		16.40
M. Crisp - Cost of Seal		
History Symposium		3380.62
Printing	680.62	
Contribution from ASBS	1000.00	
Contribution from ASBS	1500.00	
Donation from RBG Sydney	200.00	
Miscellaneous Costs		24.15
D. Foreman - Rubber stamp and receipt book		
Returned cheque		21.00
Transfer to Term Deposit		**1400.00**
Total Debit		**10579.48**
At Bank 31st December 1987		2187.38
On Deposit		**17184.70**
Total		**29951.56**

SUMMARY OF TREASURER'S REPORT FOR THE FINANCIAL YEAR ENDED 31st DECEMBER 1986

CREDIT FOR 1986

Carried Forward 31st Dec. 1985		21459.02
At Bank	4110.34	
On Deposit	17348.68	
Interest		2626.53
Commonwealth Savings Bank	225.55	
Accrued	391.22	
Term Deposits	2009.76	
Subscriptions		3271.18
Publications		1776.93
Royalties from *'Evolution of the Flora and Fauna of Arid Australia'*	161.43	
Sale of *'Flora and Fauna of Alpine Australasia'*	1030.50	
Subscriptions to CSIRO Journals	585.00	
Boden Conference		4920.00
Australian Academy of Science	4500.00	
Australian National Botanic Gardens	420.00	
Transfer from Term Deposit		**2500.00**
Total Income		**36553.66**

DEBIT FOR 1986

Printing *'Newsletters'*		1713.00
'Newsletter' 45	476.00	
'Newsletter' 46	350.00	
'Newsletter' 47	416.00	
'Newsletter' 48	471.00	
Typesetting/Typing *'Newsletters'*		163.00
'Newsletter' 45	28.00	
'Newsletter' 47	135.00	
Postage *'Newsletters'*		396.74
'Newsletter' 45	83.12	
'Newsletter' 46	97.95	
'Newsletter' 47	98.47	
'Newsletter' 48	117.20	
Other Costs Associated with *'Newsletter'*		356.00
Registration	36.00	
Envelopes	320.00	
Bank Charges		11.51
FDT	7.00	
FID	4.51	
Boden Conference		5855.00
Payment to Delegates	5781.30	
Miscellaneous Costs	73.70	
Subscriptions for CSIRO Journals		890.00
Balance of 1986 subscriptions	345.00	
Subscriptions for 1987	545.00	
W. Dorney (refund excess subscription)		40.00

Tropical Symposium		2500.00
L. Haegi	200.00	
Uniquest (P. Ashton)	2300.00	
Nancy Burbidge Memorial Lecture (D.E. Symon)		500.00
CSIRO 200 copies *'Flora and Fauna of Alpine Australasia'*		2700.00
M. Barlow (Typing-Alpine Symposium)		500.00
Incorporation Costs		101.20
M. Crisp	8.00	
Advertisement	73.20	
Application	20.00	
J.W. Whitworth (Audit Fee 1985)		300.00
Transfer of Term Deposit		2500.00
Total Debit		**18526.45**
At Bank 31st December 1986		2787.31
On Deposit		**15239.90**
Total		**36553.66**

AUDIT REPORT

I report to the members of the Australian Systematic Botany Society Incorporated that I have examined (where possible) the vouchers, receipts and books of the Society from which these statements are prepared, relating to the years ended 31 December 1986 and 1987.

Apart from the above I report that the statements comprising receipts and payments which have been drawn up in accordance with the Historical Cost Convention, in my opinion present fairly the affairs of the Society at that date.

A. Russell Quick - AASA. CPA
9.5.88

ASBS MEMBERSHIP OF FASTS

Barbara Briggs
President

ASBS joined the Federation of Australian Scientific and Technological Societies in 1985 as one of its foundation members and we pay an annual fee of $2.50 per member. At our General Meeting in May 1988 the Society decided to continue its membership, subject to future review. It is timely to consider how FASTS is organised, what it does and what ASBS and its members receive for their subscription.

The Federation includes nearly 70 societies whose members total approximately 60,000. The President is Dr Frank Larkins, Chemistry Department, University of Tasmania. Dr Larkins replaced the foundation President, Prof T.F. Smith, Physics Department, Monash who stepped down in November 1987.

The Executive Director, Dr David Widdup has his office at Suite 10, 5 Badham Street, Dickson ACT, GPO Box 2181, Canberra 2601 (062-47 3554). The Board of FASTS has 12 members, each representing either a single society that has a very large membership or a group of societies concerned

with related fields. The Ecological Society of Australia, ASBS and the Australian Society of Plant Physiologists make up Group 10. Since the inception of FASTS, Dr Bob Johnson, Director of the Queensland Herbarium (BRI) has been the Board Member for Group 10. In November 1987 I attended the General Meeting in Canberra on behalf of ASBS and was pleased that Bob accepted re-election to the Board. I believe that we are fortunate to have such a member, equally able to represent ASBS and the larger ESA.

At the annual meeting five standing committees were set up to have a 'watchdog' role to alert FASTS to any problems emerging in these areas and to develop policy for the FASTS Board to consider. The committees are concerned with

* Government Science and Technology Policy (both State & Commonwealth).
* Industry/Private Sector
* School/Tertiary Education interface
* Tertiary Education/Employment

FASTS funds are derived from its capitation fees and are used for the salary of the Executive Director, a rented office, secretarial and postage costs and travel of Executive Director and other executive members to meetings etc. FASTS is now considering steps towards becoming incorporated.

How effective is FASTS?

Questions have been raised, for instance at FASTS own General Meeting, as to whether FASTS has been effective in getting a higher profile for science, for instance at the last Federal election. Raising the profile of science is not easy. For instance, by no means all press releases distributed are actually used widely in the media. Moreover when they are used the role and name of FASTS is not always mentioned.

The Federation has spent its formative period establishing links with relevant people and organisations. As a result it is now being increasingly consulted by Government and media. A considerable number of politicians (both Government and Opposition) in Federal Parliament regularly use information from FASTS and it has taken an active part in many forums and discussions. It has been concerned with education in science and technology (especially in mathematics), the graduate tax, rural research funding, R & D sponsorship by private firms and policy within bodies such as CSIRO.

Major submissions have been made on issues such as -

* the structure and composition of the Australian Research Council;
* the shortfall in provision of trained personnel in key areas of industry and government research;
* the run-down of equipment in tertiary education;
* the need to safeguard effective small-scale research as well as providing for some 'big science' projects.
* the link between training and research.

It is collaborating with the Academy of Science, Academy of Technical Sciences and Engineering and the Institution of Engineers in mounting a forum on the subject of Commonwealth Funding of Science and Technology at Canberra in November.

Some aspects of the discussion (or at least some of the ways in which it was expressed) at the General Meeting I attended seemed somewhat remote from the general ways of thinking in those fields of science that have a major descriptive element. (This particularly concerned a possible survey of the generation of 'ideas' that could lead to commercial development or marketing.) It is therefore, I believe, appropriate that Bob Johnson has raised in the FASTS context the important matter that, with all the concern about the relevance of research to industry and the desire to join the high technology band-waggon, there may be serious neglect of field ecology and taxonomy. He stressed the need to continue training over a wide field.

Getting information to Society members

FASTS has been sending information to member societies each month but most of it has not been so relevant as to warrant its inclusion unabridged in our *'Newsletter'*. There has been a hiatus in organising summaries so that those matters of most importance can be reported to individual members on a regular basis.

FASTS has considered the possibility of issuing a journal directly to society members but has now determined on a more practical approach. It proposes to issue a small information brochure several times a year which can be supplied to societies and distributed with our *'Newsletter'*. The brochure will contain information and also advertising which will cover its production costs (FASTS will exercise the right to decline certain types of advertising). Since this does not require access to our mailing list, there should be no problem of any breach of privacy of our mailing list. The first such brochure is expected later this year.

Benefits and costs for individual members.

Australian Airlines is official carrier for FASTS - it offered a better deal than the competition. FASTS members are entitled to a discount on all international flights booked and paid through Australian Airlines.

As a FASTS member you can join ANZAAS and receive *'Search'* for $25 p.a.

If you belong to several member societies, your memberships will be paying multiple capitation fees to FASTS. It may be possible to resolve this in the future, but at present no formula for reducing multiple capitation fees has been accepted. Presumably when FASTS quotes its own strength (when lobbying Government etc) its figures are inflated due to such multiple memberships.

Is FASTS worthwhile?

In these days of shrinking budgets for science worldwide, FASTS has a difficult task. By giving our support ASBS is doing what it can to reverse this trend, I believe it is well worth continuing our membership. There may also be particular issues that ASBS wishes to raise through FASTS in the future.

GROUP PHOTOGRAPH FROM THE ASBS SYMPOSIUM

Prints of the group photograph taken at Queen's College, Melbourne University, on 27 May last, may be obtained from Alex George, ABRS, GPO Box 1383, Canberra, ACT 2601. The price of a 13 x 8cm black-and-white print is $5.50, including postage. Please order from Alex by 15 October.

PERSONAL NEWS

Death of Mrs D.J. Carr

S.G.Maisie Carr passed away on 9 September 1988 at 6pm at Royal Canberra Hospital.

REPORTS

THE THIRD INTERNATIONAL SOLANACEAE CONFERENCE

D.E. Symon
Adelaide

Between July 25 and 30 and for a two day excursion afterwards I attended the conference at Bogota, Colombia. Due to engine failure leaving Britain I arrived late and missed the opening reception and the first half day of papers.

Between 70 and 100 people attended. Simultaneous translation to and from Spanish was available. The conference was held in a convention centre.

The program was similar in coverage to the last conference in St Louis, Missouri. However, the organisers had a difficult job rearranging the programme as none of the many Indian speakers arrived and about 18 listed papers had to be dropped. This reduced congestion and allowed extra time for others and some 'posters' were elevated to lectures. The geographical representation of speakers was quite wide but no one came from SE Europe, USSR or E Asia. USA was only sparsely represented with 5 papers, Brazil, Argentina, Australia each 3, UK 6, Peru 2, Chile, DDR, Ecuador, France, Italy, NZ each 1. Colombia dominated with about 16.

Some highlights were:--

D'Arcy (USA) gave a detailed survey of current Solanaceae taxonomy, Hepper (UK) reported on a welcome account of *Withania*, Hunziker (Argentina) continued his detailed study of generic limits of several American genera. Brown (Brazil) spoke on the fascinating relationships of the Ithominae butterflies and the Solanaceae, Roddick (UK) gave an excellent survey of the importance of Solanaceae alkaloids in modern pharmacology. Olmstead (USA) spoke on work on the analysis of chloroplast DNA now underway for the entire family and already showing promising results. Papers too numerous to detail covered aspects of wide crossing (already useful in tomato and potato); tissue culture, and the agronomy of the many important crop plants, potato, tomato, chili, tobacco, eggplant, tree tomato, cape gooseberry and lulo. It was noticeable that the South American growers frequently ran into disease problems especially root diseases of their own local crops. There were no papers on cladistics or computer taxonomy and the floricultural aspects of the family (eg *Petunia*) were not covered. Nor were any aspects of weediness considered.

Invitations were extended to Argentina or Australia to host a fourth conference in 1994, and any Australian botanists interested are asked to contact me soon.

HENNIG VII - STOCKHOLM August 24-28, 1988

Judy West and Pauline Ladiges
England

Last week we attended the VIIth meeting of the Willi Hennig Society held in the University of Stockholm. The meeting included sessions on cladistics of fungi, Pacific biogeography, quantitative phylogenetics, cladistics and species concepts and cladistics in ecology. Discussions were fruitful and on occasions even spirited! Amongst other things, the aspects of recognising paraphyletic taxa were discussed again.

The Donn Rosen student award for the best student paper was awarded to Soren Nylin (a Swedish ecology student).

During the meeting we had the opportunity to see the latest computer packages for phylogenetic analysis (using parsimony) from Steve Farris and David Swofford.

Farris' latest offering HENNIG 86 (named after the chip) is amazingly compact (occupying 49K) and impressively speedy. It is designed to run on IBM compatibles, including those with two floppy disc drives and no maths coprocessor is necessary. We had used HENNIG 86 on some real current data sets while Steve was in London the week before the Stockholm meeting and can confirm it is incredibly fast and should be very useful to all of us. If you would like to purchase a copy write to:

Dr J.S. Farris — Cost: US$ 50
Department of Entomology
American Museum of Natural History
Central Park West at 79th Street
New York NY 10024, USA

Swofford had his latest prerelease version (3.0) of the widely used PAUP available for use at the Hennig meeting. PAUP 3.0 is being developed for both IBM compatibles (PAUP/PC) and for Apple Macintosh (PAUP/Mac) microcomputers with 'convenient user interface based on pulldown menus and dialog boxes'. The PAUP/Mac version (integrated with MacClade) should be available by the end of this month and the current target date for PAUP/PC is November 1988. 'Mainframe and microcomputer versions will be available soon thereafter'. If you want more information or wish to obtain PAUP then write to:

Dr D.L. Swofford — Cost: US$ 50
Illinois Natural History Survey
607 E Peabody Drive
Champaign IL 61820 USA

Norman Platnick reported on benchmark tests which he has performed on both programs, the results of which will be published in a forthcoming issue of *'Cladistics'*. His conclusions and our short experience of both programs indicate that they are very good and that it is worth having both available to you.

During the meeting most of us took advantage of a day's excursion to Uppsala to 'experience' Linnaeus. With the President of the Swedish Linnaeus Society, Dr Bengt Jonsell, acting as our guide we visited Linnaeus' garden and the Linnaeus Museum, which stands within the grounds of the garden. After lunching in Hotel Linne we strolled through Uppsala itself to the very beautiful cathedral where Linnaeus and his wife are buried. In the afternoon we visited Linnes Hammarby - his summer house, located about 15km from Uppsala. On the hill behind the house in a wonderfully peaceful setting of birch trees, moss-covered rocks and lots of different species of fungi (at this time of year), Linnaeus had a small museum where he kept his collections. It was an extremely rewarding and inspiring day and a chance to feel and learn about a person who has had such an influence on our discipline.

Overall the Hennig VII meeting was a great success and the Swedish hosts should be congratulated on their smooth and hospitable organisation. At this stage there seems to be considerable interest in the 1990 Hennig meeting to be held in Canberra.

'FLORA OF NORTH AMERICA'

Alex George
Executive Editor, *'Flora of Australia'*
Bureau of Flora & Fauna, Canberra

In May this year I attended by invitation two meetings for the exciting new *'Flora of North America'* (*'FNA'*) project, held in Alexandria just south of Washington, DC.

Like the *'Flora of Australia'*, the new *'FNA'* will bring together current knowledge on the plants of the region, in this case the area north of Mexico, including Greenland. The content and level of detail will be similar to those of our *'Flora'*. Some 17000 species of vascular plants will be covered. The published *'FNA'* will be in twelve A4-size volumes planned to be issued between 1990 and 2000. In addition there will be a computerised database that will include both the published data and information on such aspects as chemistry, anatomy, ethnobotany, phenology etc.

On 1-2 May I participated in the third meeting of the *'FNA'* Editorial Committee. Nineteen taxonomists from various states and provinces of the USA and Canada make up the Committee. They have various roles in seeking contributors, editing manuscripts, liaising with local botanical communities, in addition to determining content and format. Details of the latter are still being thrashed out. The Convening Editor is Dr Nancy Morin, Missouri Botanical Garden, where the organisational centre is based. Arthur Cronquist's system will be the basis of the systematic sequence of families. The publisher is Oxford University Press (New York). Funding for the project is being provided, in part, by the Pew Charitable Trusts, the Robert and Lucile Packard Foundation and the National Science Foundation.

From 4-7 May I took part in a workshop 'Floristics for the 21st Century'. Day 1 consisted of papers on the *'FNA'* project and other floristic projects in North America and elsewhere. I presented an overview of the *'Flora of Australia'* including the experience gained so far. Days 2 and 3 saw working groups discuss specific aspects of the uses of floras and floristic information, with special reference to the *'FNA'*. On Day 4 the groups wrote up the results of their discussions, so that by the end of the Workshop a draft report was ready for editing. This is to be published shortly.

The Workshop was stimulating, clearly demonstrating the need for the kinds of data included in major floras and associated databases. Some 50 people representing various government and private agencies participated.

The new *'FNA'* project appears to have both the people and the organisation to achieve its goal this time. For the *'Flora of Australia'* it was a heartening recognition of our success so far to be invited to these meetings.

'FLORA OF AUSTRALIA'

Alex George
Executive Editor, *'Flora of Australia'*
Canberra

Volume 19 of the *'Flora of Australia'* was published on 27 June 1988. It is the first of three volumes on the family Myrtaceae and contains *Eucalyptus* and *Angophora*.

The next of the series - Volume 3 - is currently being typeset.

PAPUA NEW GUINEA BOTANICAL SOCIETY

Karl Kerenga
Lae

Over fifty botanically and ecologically minded people attended the fifteenth meeting of the PNG Botanical Society, an affiliated society of ASBS, held in the L.J. Brass Memorial Herbarium of the Forestry Department at University of Technology, Lae, over the weekend of 16-17 June.

The opening address was given by The Honourable Minister for Environment and Conservation, Mr Zeipi. The closing address (paper read) was by the Honourable Minister for Forests, Mr Horik.

The following papers (mostly slides and brief talks) were presented:

Johns, R.J.	Endemic plant genera of Papuasia.
King, R.	The Algae of the mangrove communities of New Guinea: initial conservations.
Matcham, E.J.	Progress report on meristem culture of Rattans (*Calamus* and *Korthalsia*).
Gurnah, A.	Food plants: the need for further research.
Howcroft, N.	The genetic tree resources of Papua New Guinea.
Jebb, M.	Ant plants of New Guinea.
Reardon, T.	Bats of New Guinea: diversity, pollination and seed dispersal.
Grube, L.	Plants and man: the early role of plants in New Guinea prehistory.
Hilton, G.	The significance of rainfall to nutrient cycling in tropical rainforests.
Cruttwell, N.	Mt. Gahavisuka National Parks: The orchids.
Hughes & Sullivan, M.	The preparation of environmental impact studies.
Pernetta, J.	The assessment of environmental impact studies.
Saulei, S.	Conservation and forest policy.

NEWS FROM THE ABLO

Judy West
Royal Botanic Gardens, Kew

I can hardly believe that one year has passed since I began as ABLO at Kew. I am sure previous liaison officers will have had the same feeling of disbelief and concern at how fast this year at Kew has passed. We don't seem to have had any idle moments and yet haven't done as much as we would have liked - work and play. It has been a fruitful and rewarding time for me.

June 1 was Kew's special day for celebrating Australia's 200 years of European settlement. The Speaker of the House of Commons, Mr Bernard Weatherill, planted a tree of *Castanospermum australe* at Australia House. The Speaker's chair, focal point of the House of Commons, is made of

Castanospermum australe (black bean) timber. It was presented to Parliament by the Australian Government for restoration of the House after its World War II bomb damage. Also, the recent research work on this species by the biochemists at Kew and the isolation of the alkaloid castanospermine, an inhibitor of the human immunodeficiency virus, meant that it was appropriate for this to be the chosen species. After a pleasant lunch in the Gardens Pavilion Restaurant, Mr Lucas (Keeper of the Herbarium) and I showed Mr and Mrs Weatherill the herbarium and library.

I also arranged a visit to the Gardens for the Australian High Commissioner, Mr Douglas McClelland and Mrs McClelland.

A separate leaflet distributed to the public indicating the main locations of Australian plants in Kew Gardens has been available for the past few months.

I have recently done some field work in East Anglia with Peter Sell from Botany Department, University of Cambridge. His knowledge of the flora of this region is remarkable. Actually, it would probably be more accurate to say his knowledge of the plants since he appeared to know each one personally. It was extremely useful to me as we found several species of *Spergularia* and some *Scleranthus* in their natural habitats. Fancy recording zero degrees of longitude for locality data!

AUSTRALIAN BOTANICAL LIAISON OFFICER AT KEW, 1988-89

Barbara Briggs
National Herbarium, Sydney

Mrs Karen Wilson left Sydney on 1st September, to take up the Liaison Officer position for 1988-9, following Dr Judy West in that appointment. The position is normally held for a 12-month period but it is by no means certain that the available funds will be sufficient for so long a period. Karen will carry out the normal liaison duties and will continue her research in the Cyperaceae. She intends to visit the following other herbaria: Leiden, Utrecht, Edinburgh, Gent, Berlin, Paris, Copenhagen, Lund.

BOOK REVIEWS

Clarke, I. & Lee, H. (1987). **Name That Flower**, Melbourne University Press. R.R.P. $29.95

When, late in 1970, I made landfall in Australia (in the fair city of Melbourne) among the more painful cultural adjustments I had to make was the lack of a work equivalent to *CTW*. *CTW*, or *'Flora of the British Isles'* by Clapham, Tutin and Warburg was the mainstay of British botanists - both professional and amateur. When I asked politely what flora there was available the reply came that Ewart - *'Flora of Victoria'* - might be able to be bought, but that was a little dated, or there was part one of Willis - with part two due 'anytime'. Or, there was the 'monster', produced by Melbourne Botany Department!

Botanical identification in Australia has come a long way in the last 18 years, with the high point being the start of publication of the *'Flora of Australia'* which in turn seems to have stimulated the production of many regional and State floras. Nonetheless, it is still very difficult to find books which will enable you to identify flowering plants wherever you are in Australia. *'Name That Flower'* still won't allow you to, but it will bring you a whole lot closer.

The authors' introduction suggests that the reader, whatever their knowledge, will become an expert identifier overnight. This clearly is impossible, and I suspect that the true innocent will drown in the 'no holds barred' approach to botanical terminology. Generosity, however, forces me to admit that I don't see how they could have done much better!

The Family descriptions are very good, and useful to all - as is the detailed bibliography. Faults? Well, I wonder why such attention is given to floral formulae, and, as an adopted sandgroper the traditional south-eastern bias exhibited in the choice of keys used as examples is irritating. Why was it necessary to include such information anyway? Or is it there because this is a book designed for a course, and somewhat non-critically adapted as a general text?

When all is said and done, however, this is a book which leaves me saying 'wish I'd written that' - and knowing I couldn't have done better. The price is not cheap, but it is a book that will get a lot of use if you have it on your shelf. It will cease to have value when *'Flora of Australia'* is on CD for your personal walkman field computer. As that day is not likely before the turn of the century, I recommend *'Name That Flower'* in the meanwhile!

Peter Bridgewater
Canberra

Zohary, D. & Hopf, M. (1988). **Domestication of Plants in the Old World**, 249 pp. 25 maps, 38 figs. Oxford Science Publications. Advertised as 35 pounds, actually paid 29 pounds.

The resurgence of interest in the domestication of plants in the last 25 years has resulted in a number of books on the subject. As much of Australia's agriculture and horticulture is related to the Mediterranean and temperate European environments almost every plant discussed in this volume is grown to some extent in Australia. Over 60 species are discussed and after a paragraph on the crop, its wild ancestry is given together with something of its evolution under domestication. The archaeological evidence is often supported by maps and mainly line illustrations. The volume is a model for the careful use of botanical names and the exemplary use of technical terms together with direct and economical use of English. The discipline enforced by N.W. Simmonds on his many contributors to *'Evolution of Crop Plants'* has been emulated here, resulting in an excellent model for scientific books aimed at a broad audience.

It is interesting to find how significant the breeding system of a species is in its potential for domestication. In-breeders from whom superior cultivars can be selected and maintained head the list. This also applies to woody plants in a different way in as much that the early tree crops were those that could be vegetatively propagated. Others had to wait until discovery of budding and grafting before selected variants could be maintained.

Major chapter headings include: sources of evidence; cereals; pulses; oil and fibre crops; fruit trees; vegetables; condiments; fruit collected from the wild; plant remains in representative sites and conclusions.

Recommended to all who have an interest in the origin and history of what we eat and the botanical background to the beginnings of Western, Old World agriculture.

D.E. Symon
Adelaide

Brock, John (1988). **Top End Native Plants**, XII, 354 pp. John Brock, Darwin ISBN 0-7316-0859-3. R.R.P. $45.00.

This volume comprises 366 pages with 700 colour photographs and 26 line drawings. A total of 450 native plant species from the Top End of the Northern Territory are treated. In the author's words it attempts 'a comprehensive coverage of shrubs and trees of the dominant eucalypt communities .... there is also a substantial selection of distinctive species from other major habitats, including sandstone regions, monsoon forests and mangroves. A variety of common herbs, ferns, climbers and aquatics from various habitats completes the species selection'.

'Top End Native Plants' consists of two major chapters: plant communities (30 pp.) and plant descriptions (283 pp.). Introductory pages include a guide to using the book, while the final pages contain a list of relevant references, an illustrated glossary, a list of species treated arranged alphabetically by family and an index. The 'plant communities' chapter contains descriptive essays outlining the major plant habitats and communities of the 'Top End'. The eucalypt woodlands and monsoon forests treatments were written by Clyde Dunlop and Jeremy Russell-Smith respectively. Included here is a reference table of all species treated in the book which allows a guide to identification by means of species, lifeform, phenology and habitat preference.

The 'plant descriptions' chapter occupies the bulk of the book. The 450 species treated are arranged alphabetically by genus and species name. Information is presented in a standardised format and includes the scientific name and common name (if it is well known and not misleading), a description, flowering and fruiting times, distinctive features, habitat notes, cultivation techniques, Aboriginal usage, general notes, distribution (local, regional and worldwide; maps for 75% of the species are included) and one or more colour photographs.

The author and publisher, John Brock, has been researching and photographing the species contained in this book for over five years, and two years of this time was spent full time on the project. His practical experience as a seed collector has given him an excellent background to write such a book; indeed it was the lack of published material available to him when he began seed collecting that acted as a catalyst for this book. The plant descriptions are based upon his extensive field experience in the 'Top End' and the collections of plants housed in the Darwin Herbarium.

'Top End Native Plants' is a publication of high quality in all respects. The design, typesetting and printing quality ensure the presentation of this volume is of the highest order. The text is concise, clearly written, thoroughly researched and factual. The photographs are of excellent clarity and well reproduced.

'Top End Native Plants' fills an important niche in botanical literature for people interested in native plants in the 'Top End' and indeed north Australia. Previous publications have either lacked detail, been restricted to small areas, or have been of a scientific nature and unavailable to many. This volume, however, happily treads the fine line between scientific and coffee table texts.

In summary I would strongly recommend this book to anyone interested in native plants in the 'Top End' or north Australia generally. It is, and will continue to be for some time, the most comprehensive volume available on the subject. At $45 recommended retail price this book is very reasonably priced. The fact that over half of the 5000 number print run have sold within 4 months of its launch is testament to its quality and appeal.

Glenn Wightman
Darwin Herbarium

Tucker, Robert (1988). **Palms of Subequatorial Queensland**, 94 pp. The Palm and Cycad Societies of Australia. ISBN 0-9587931-0-7.

This book, the first in a series of three, covers all the palm species found on Cape York Peninsula as far south as 16°S latitude. The author, who has a consumate interest in palms and pandans, has travelled extensively in the area, as well as living at various sites on the Cape for a number of years. The comments and descriptions of the species have been made from first hand knowledge. The book is deliberately written in semi-technical language so as to reach as wide an audience as possible. Twenty species are covered in detail and each species is assigned to a family, tribe and subfamily. As well, common names used within the geographic area are given. Included with the description of each species are notes on habitat, distinguishing features and distribution. Maps showing the range are also provided for each species. All species are illustrated by one or more black and white photographs; many are also shown in colour. Several appendices are included: soil landscapes of Cape York Peninsula by R.F. Isbell; a field key to the species and a table on character comparisons, which have been compiled by David Transwell. This useful table covers leaf, crown and trunk characteristics, as well as seedling, inflorescence, flower and fruit characteristics.

Unfortunately a number of spelling errors escaped editing. I would have liked colour plate captions to have been associated with the plates rather than being grouped towards the end of the book. This is a valuable book for anyone interested in palms and/or Cape York.

B.R. Jackes
Townsville

RECENT PUBLICATIONS

The Tableland Branch of SGAP (1988) **North Queensland Native Plants.** Kangaroo Press Pty Ltd. ISBN 0-86417-219-2 This well presented book covers 1: A selection of North Queensland species, 2: NQ species for gardens, 3: Managing your garden, 4: Using NQ plants, 5: Special plant habitats of NQ.

NOTICES

ASBS SYMPOSIUM and FORUM

SYMPOSIUM: PLANT SYSTEMATICS IN THE AGE OF MOLECULAR BIOLOGY

FORUM: GONDWANAN ELEMENTS IN THE AUSTRALIAN FLORA

To all ASBS members interested in attending:

Have you returned the questionnaire sent with the July *'Newsletter'*?
If not, please assist by responding to:

ASBS Symposium
c/- B.G. Briggs
Royal Botanic Gardens
Sydney 2000
Fax (02) 251 4403

Additional copies of the first circular are available from Barbara Briggs (02) 231 8113

FASTS - NSTAG

FASTS is collaborating with the Academy of Science, the Academy of Technological Sciences and Engineering and the Institution of Engineers (Aust) to provide an analysis of the Commonwealth Budget and mount a Forum on this. The four bodies concerned form the National Science and Technology Analysis Group (NSTAG)

The organising committee headed by Professor Arthur Birch wants the organisations involved to develop a set of, say, 5 recommendations that will be supported by arguments at the forum for us to carry further into lobbying next year. These might include:-

* the implementation of ASTEC's recommendation for increased funding for the ARC;
* a long-term Commonwealth commitment to in-service education and training of teachers of mathematics, science and technology;
* the inclusion of a fifth committee on the ARC to be concerned with generic technology;
* the restoration of Commonwealth commitment to education and training of 1% of GDP;
* re-equipping Government laboratories and universities and colleges over the next five years;
* doubling Australia's R & D effort by the year 2000.

The Forum will be on 3 and 4 November in the Academy 'dome'. FASTS welcomes input from Member Societies on the subject.

Enquiries and registrations to Mr Lee Rydstrand, Institution of Engineers (062-70 6555)

International Organisation of Plant Biosystematists (IOPB)

Call for Nominations

The Nominating Committee consisting of the IOPB Council and Executive members has been established to solicit names for a mail ballot for Vice-President, Secretary-Treasurer, and ten Council members. No more than two persons may be elected from any one country. The Nominating Committee consists of the Council: J.F. Bain (Canada), Maria A. Cardona (Spain), Jiakuan Chen (China), H.C.M. den Nijs (Netherlands), W.H. Eshbaugh (USA), J.R. Estes (USA), B. Jonsell (Sweden), A. Rousi (Finland), C.J. Webb (New Zealand), Judy West (Australia) and the Executive: K. Urbanska (Switzerland), S. Kawano (Japan), L. Borgen (Norway), and W.F. Grant (Canada). Send suggestions of names to any member of the Nominating Committee by November 1, 1988. A ballot will be sent for voting to all members of IOPB and the names of the new Executive and Council Members will be announced at the Business Meeting to be held during the IOPB 1989 Symposium, Kyoto, Japan, July 9 to 14, 1989.

The Relocation of the FRI 'Eucalyptus' Collection

Since December 1987 the FRI (CSIRO Division of Forestry and Forest Products) *Eucalyptus* and *Angophora* collection has physically become part of the Australian National Herbarium - CANB (CSIRO Division of Plant Industry, Canberra) collection and is housed on site at Black Mountain. The collection is now fully accessible and all enquiries regarding the loan of specimens should be directed to CANB rather FRI. Also, all *Eucalyptus* and *Angophora* exchange should be sent to CANB as FRI no longer has facilities to deal with herbarium material.

1989 Prices for CSIRO Journals

Prices quoted are Concession Rates to ASBS members. In all cases this price represents a considerable saving and is usually about half the normal subscription rate.

'AUSTRALIAN JOURNAL OF AGRICULTURAL RESEARCH'	$65.00
'AUSTRALIAN JOURNAL OF BOTANY'	$65.00
'AUSTRALIAN SYSTEMATIC BOTANY'	$45.00
'AUSTRALIAN JOURNAL OF CHEMISTRY'	$160.00
'AUSTRALIAN JOURNAL OF MARINE AND FRESHWATER RESEARCH'	$70.00
'AUSTRALIAN JOURNAL OF PHYSICS'	$60.00
'AUSTRALIAN JOURNAL OF PHYSIOLOGY'	$65.00
'AUSTRALIAN JOURNAL OF SOIL RESEARCH'	$45.00
'AUSTRALIAN JOURNAL OF ZOOLOGY'	$70.00
'AUSTRALIAN JOURNAL OF EXPERIMENTAL AGRICULTURE'	$65.00
'INVERTEBRATE TAXONOMY'	$110.00
'AUSTRALIAN WILDLIFE RESEARCH'	$45.00
'REPRODUCTION AND DEVELOPMENT' (previously *'Australian Journal of Biological Sciences'*)	$60.00

Orders and payment should reach the Treasurer not later than 18th Novenber, 1988.

Orders from libraries cannot be accepted.
Late orders will not be accepted.

Dr. D.B. Foreman
Treasurer, ASBS.
National Herbarium of Victoria
Birdwood Avenue, South Yarra, VICTORIA 3141.

Australian Visit by Dr W.D. Clayton

Dr W.D. Clayton, Kew Herbarium, will be spending four months in Australia from mid-November, 1988, as an officer of the CSIRO Visiting Scientist's Program.

He will be located during this period in the Australian National Herbarium, Canberra (CANB) and working in collaboration with Mike Lazarides on a project aimed at producing a computer-generated model for the presentation, standardization and clarification of taxonomic data for the Australian Poaceae.

Anyone wishing to contact Dr Clayton can advise Mike Lazarides on (062) 465911.

Back-copies of 'ASBS Newsletter'

Inez Armitage, 2 River Meadows, Kempsey, NSW 2440, has copies of *'ASBS Newsletter'* 2, 3, 4, 6, and 15-53 which she no longer requires. Please contact her if you would like them.

The Society

The Society is an association of over 300 people with professional or amateur interest in Botany. The aim of the Society is to promote the study of plant systematics.

Membership

Membership is open to all those interested in plant systematics and entitles the member to attend general and chapter meetings and to receive the *'Newsletter'*. Any person may become a member by forwarding the annual subscription to the Treasurer. Subscriptions become due on the 1st January.

The Newsletter

The *'Newsletter'* appears quarterly and keeps members informed of Society events and news, and provides a vehicle for debate and discussion. In addition original articles, notes and letters (not exceeding ten pages in length) will be considered. Contributions should be sent to the Editor at the address given below, preferably as an unformatted ASCII file on an MS-DOS diskette accompanied by a printed copy, or as two typed copies with double-spacing. All items incorporated in the *'Newsletter'* will be duly acknowledged. Authors are alone responsible for the views expressed.

Notes

The deadline for contributions is the last day of February, May, August and November.

ASBS Annual Membership is $16 (Aust) if paid by 31 March, $20 thereafter. Students (full-time) $12. Please remit to the Treasurer.

Advertising space is available for products or services of interest to ASBS members. Current rate is $30 per full page. Contact the *'Newsletter'* Editor for further information.

All address changes should be sent to the Treasurer or the Editor.

Editor

Mrs B. Barnsley
Tel (062) 86 1805

Associate Editor

Dr M.D. Crisp
Tel (062) 67 1821

Australian National
Botanic Gardens
GPO Box 1777
CANBERRA ACT 2601

Fax (062) 48 0682

Typing

Canwords

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